

THE HANDBOOK

Secondary Career and Technical Education Resource Handbook For CTE Administrators

April 2003

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Arizona Department of Education

Secondary Career and Technical Education Resource Handbook

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INTRODUCTION

This Handbook has been designed as a “user friendly” resource book for Career and Technical Education (CTE) administrators. This information will be used when reporting enrollment data beginning in the 2003-2004 school year.

A complete list of current competencies for each CTE program is located in the Comprehensive CTE Programs section. Each CTE program offers a coherent sequence of instruction identified by the curriculum design teams made up of representatives from business and industry, CTE educators and assigned Arizona Department of Education (ADE) and staff. The competencies identified for each CTE program establish what should be taught. Recently revised competencies reflect increased level of rigor to prepare students for industry/technical certifications. The Local Education Agency (LEA) determines how the competencies will be taught.

The LEA is responsible for maintaining records on individual student assessment for each Level III competency until a state-adopted technical proficiency exam is in place. Information on attainment for each Level III competency will include all of the following:

- Attaining or not attaining the competency;
- Dated at the end of the grading period;
- Method of assessment (e.g., written exam, oral presentation, demonstration performance, class/group project, take home exam); and
- Written criteria defining how to judge performance to meet or not meet the competency

There are several CTE programs listed in the Handbook that are currently in development. After ADE has completed curriculum design/adoption process for these programs, the competencies and coherent sequence will be available.

Administrators, teachers, data reporting personnel, ADE staff and other interested individuals will use this Handbook. It will be used for the following activities:

- Reporting enrollment data for 2003-2004 school year
- Developing and reviewing the Basic Grant application
- Utilizing the CTE Program List
- Planning new comprehensive CTE programs
- Modifying existing comprehensive CTE programs
- Identifying teacher certification requirements
- Locating phone numbers and email addresses for ADE staff

This document is available to you on the Arizona Department of Education CTE web page. You will find it located at <http://www.ade.state.az.us/cte> and available in pdf format.

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COMPREHENSIVE CAREER AND TECHNICAL EDUCATION PROGRAMS

In January 2003 the Arizona Department of Education commissioned a researcher to identify and propose improvements to the Arizona Career and Technical Education (CTE) delivery system. The research project is examining the mission and policy context for Career and Technical Education from a national perspective. Another component is accountability and technical proficiency assessments for quality CTE program infrastructure. This visionary research will provide recommendations for the future delivery of Career and Technical Education in Arizona high schools. The staff at the Arizona Department of Education will involve various policy stakeholders throughout the 2003-2004 school year to propose the new delivery system for Arizona.

Historically, the Arizona Department of Education initiated a major effort to update and restructure vocational education in 1987. The Division of Vocational Technological Education in cooperation with representatives of business and industry and full participation of teachers and administrators, developed a new framework for vocational instruction. This framework was called the "Arizona Model for Vocational Technological Education."

During the past decade, the Vocational Technical Education/School to Work Division at the Arizona Department of Education has been involved in assisting schools and districts to restructure their vocational education programs. This restructure came about as the result of the recognition that many students were not being prepared adequately for the workforce. It was determined that more emphasis needed to be placed on students' acquiring a strong foundation in academic and technical skills as well as having access to quality state-of-the-art technology - the driving force behind tomorrow's jobs.

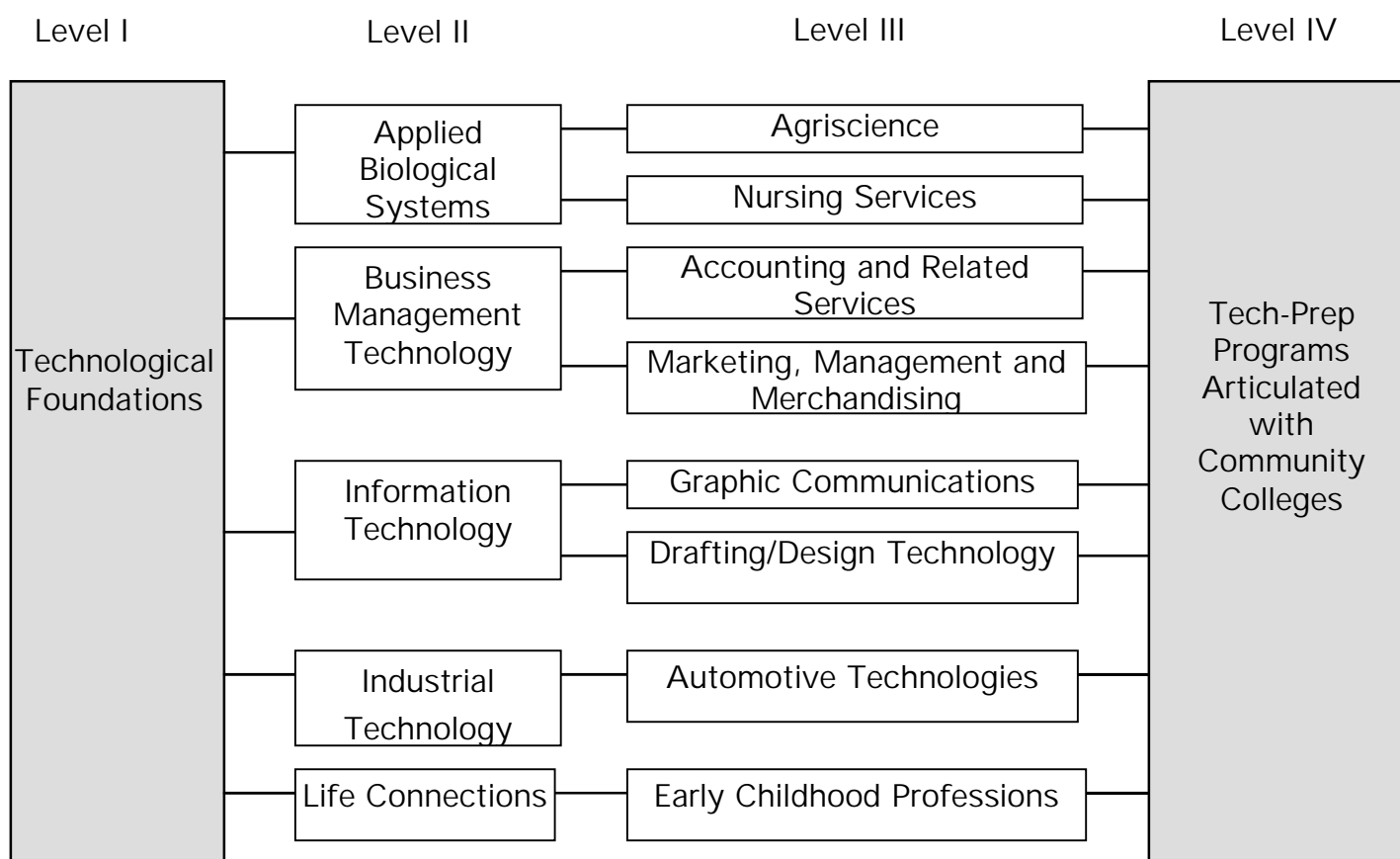
On September 25, 2000 the State Board of Vocational Technological Education approved the name change from Vocational Education to Career and Technical Education (CTE). During the 2002 legislative session references in the Arizona Revised Statutes to Vocational and Technical Education were changed to Career and Technical Education. Today all career and technical education programs are comprehensive in that they are designed around an instructional sequence consisting of four levels. Courses in each level focus on developing decision-making skills, career development skills, academic skills, teamwork and leadership skills, technology skills, workplace skills and occupational skills. The four instructional levels are as follows:

- Level I, which is designed for grades 7 and 8 is the exploratory level. It represents a core of academic and technical competencies that support all occupations and career exploration for all interest areas. These competencies may also be taught at the high school level.
- Level II, which is designed for grades 9 and 10, serves as the transition between the broad exploration provided at Level I and occupationally specific instruction provided at Level III. Students develop higher levels of proficiency in one or more occupational "clusters." The five Level II clusters provide CTE students with the foundation of core skills necessary to continue their training in the specific occupational program.

- Level III, which is designed for grades 11 and 12, provides students with occupationally specific preparation that leads to employment after graduation and/or further education and training.
- Level IV, which is designed for the years after high school, is the final level in this sequence. Students begin entry-level employment and/or receive advanced training and education at a community college, a proprietary school, a university or in the military.

Students also have the option of participating in tech-prep programs and/or work-based learning experiences-both of which can provide them access and exposure to technology used in the workplace as well as all aspects of the industry.

The sequence for several comprehensive programs are outlined in the chart below:



TECHNOLOGICAL FOUNDATIONS

COURSE CODE: 90.0000.10

DESCRIPTION: Level I

Level I is the foundation experience for all Career and Technical Education Programs. The Arizona Department of Education approved curriculum introduces students to the world of work, related technologies and includes academic and occupational competencies designed for all seventh and eighth grade students. These competencies may also be delivered at the high school level. Six skill strands have been identified and incorporated as a component of this curriculum: Career Development, Applied Academics, Life Management, Technology, Business/Economic and Leadership skills. The instruction is supported by a flexible learning environment, appropriate technology and support systems.

The competencies developed for Level I students address career exploration and core skill development common to **virtually all occupations**:

Students will attain the following competencies:

- 1.0 Explore career interests
- 2.0 Explore the world of work
- 3.0 Explore human relations skills
- 4.0 Explore health and safety in the workplace
- 5.0 Explore technology in the workplace
- 6.0 Explore problem solving in the workplace

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INFORMATION TECHNOLOGY

COURSE CODE: 99.0100

DESCRIPTION: Level II

The Level II experience is designed for students in grades 9 through 10 and includes core skill development for a cluster of related occupations. Students may select one or more of the five Level II clusters, which have been grouped together by common skills, knowledge and a set of employability skills found in a range of occupations. The Information Technology cluster serves as a transition between the broad exploration provided through the Level I Technological Foundations experience and the occupationally specific instruction provided at Level III.

Information Technology is defined as an instructional experience that provides students with an understanding of and orientation to, occupations involved in communications, design of systems and processes and information management.

Students will attain the following competencies:

IN DEVELOPMENT

INDUSTRIAL TECHNOLOGY

COURSE CODE: 99.0200

DESCRIPTION: Level II

The Level II experience is designed for students in grades 9 through 10 and includes core skill development for a cluster of related occupations. Students may select one or more of the five Level II clusters, which have been grouped together by common skills, knowledge and a set of employability skills found in a range of occupations. The Industrial Technology cluster serves as a transition between the broad exploration provided through the Level I Technological Foundations experience and the occupationally specific instruction provided at Level III.

Industrial Technology is defined as an instructional experience that provides students an understanding of and orientation to, occupations involved in the design, production, processing, assembling, testing, maintaining, servicing and repairing of goods.

Students will attain the following competencies:

IN DEVELOPMENT

APPLIED BIOLOGICAL SYSTEMS-AGRICULTURE

COURSE CODE: 99.0300.20

DESCRIPTION: Level II

The Level II experience is designed for students in grades 9 through 10 and includes core skill development for a cluster of related occupations. Students may select one or more of the five Level II clusters, which have been grouped together by common skills, knowledge and a set of Employability Skills found in a range of occupations. The Applied Biological Systems cluster serves as a transition between the broad exploration provided through the Level I Technological Foundations experience and the occupationally specific instruction provided at Level III.

Applied Biological Systems-Agriculture is defined as an instructional experience that provides students with an appreciation for living systems as applied to the science of food and fiber production, food processing and human health.

Students will attain the following competencies:

- 1.0 Demonstrate laboratory procedures and safety practices
- 2.0 Describe mammal health needs
- 3.0 Describe basic principles of nutrition
- 4.0 Examine the interaction of biological systems within the environment
- 5.0 Describe principles of plant growth production
- 6.0 Describe principles of animal growth and production
- 7.0 Describe food safety and processing practices
- 8.0 Describe advances in technology
- 9.0 Discuss bioethical issues
- 10.0 Demonstrate group dynamics and leadership skills
- 11.0 Demonstrate communication skills in a business situation
- 12.0 Develop an employment plan
- 13.0 Identify job-seeking tools and skills
- 14.0 Prepare for employment

APPLIED BIOLOGICAL SYSTEMS-HEALTH

COURSE CODE: 99.0300.30

DESCRIPTION: Level II

The Level II experience is designed for students in grades 9 through 10 and includes core skill development for a cluster of related occupations. Students may select one or more of the five Level II clusters which have been grouped together by common skills, knowledge and a set of employability skills found in a range of occupations. The Applied Biological Systems cluster serves as a transition between the broad exploration provided through the Level I Technological Foundations experience and the occupationally specific instruction provided at Level III.

Applied Biological Systems-Health is defined as an instructional experience that provides students with an appreciation for living systems as applied to human health.

Students will attain the following competencies:

- 1.0 Demonstrate safety compliance in the laboratory
- 2.0 Describe the human body systems
- 3.0 Describe basic principles of human nutrition
- 4.0 Examine health and wellness issues
- 5.0 Analyze the influence of technology on health
- 6.0 Develop an employment plan
- 7.0 Demonstrate job search skills
- 8.0 Demonstrate employability skills

APPLIED BIOLOGICAL SYSTEMS-FOOD SCIENCE

COURSE CODE: 99.0300.40

DESCRIPTION: Level II

The Level II experience is designed for students in grades 9 through 10 and includes core skill development for a cluster of related occupations. Students may select one or more of the five Level II clusters, which have been grouped together by common skills, knowledge and a set of employability skills found in a range of occupations. The Applied Biological Systems cluster serves as a transition between the broad exploration provided through the Level I Technological Foundations experience and the occupationally specific instruction provided at Level III.

Applied Biological Systems-Food Science is defined as an instructional experience that provides students with an appreciation for living systems as applied to the science of food and fiber production, food processing and human.

Students will attain the following competencies:

Demonstrate laboratory procedures and safety practices

- 1.0 Apply the basic principles of nutrition
- 2.0 Demonstrate chemical reactions and physical changes that occur during food preparation
- 3.0 Describe food safety and food processing practices
- 4.0 Analyze technology used in food product development and marketing
- 5.0 Research careers in food science, food preparation, dietetics and nutrition
- 6.0 Develop an employment plan
- 7.0 Demonstrate job search skills
- 8.0 Demonstrate employability skills

BUSINESS MANAGEMENT TECHNOLOGY

COURSE CODE: 99.0400

DESCRIPTION: Level II

Business Management Technology is defined as an instructional experience that provides students with an understanding of and a familiarity with, the principles and practices of business. In a comprehensive CTE program, Business Management Technology serves as a transition between the broad exploration provided through the Level I Technological Foundations experience and the occupationally specific instruction provided at Level III.

Students will attain the following competencies:

- 1.0 Explore a career plan
- 2.0 Explore job search skills
- 3.0 Demonstrate employability skills
- 4.0 Apply communication skills in business situations
- 5.0 Explore the legal and ethical environment of business
- 6.0 Explore economic principles to business operations and management
- 7.0 Apply problem solving and decision making processes to business situations
- 8.0 Apply technology to support business operations
- 9.0 Prepare financial records and accounts
- 10.0 Apply marketing principles to business operations

LIFE CONNECTIONS

COURSE CODE: 99.0500

DESCRIPTION: Level II

The Level II experience is designed for students in grades 9 through 10 and includes core skill development for a cluster of related occupations. Students may select one or more of the five Level II clusters, which have been grouped together by common skills, knowledge and a set of employability skills found in a range of occupations. The Life Connections cluster serves as a transition between the broad exploration provided through the Level I Technological Foundations experience and the occupationally specific instruction provided at Level III.

Life Connections is defined as an instructional experience that provides students with an orientation to and an understanding of, occupations that directly address the welfare of human beings.

Students will attain the following competencies:

- 1.0 Analyze self acceptance and respect for others
- 2.0 Analyze factors that influence human behavior
- 3.0 Develop interpersonal relationship skills
- 4.0 Demonstrate effective communication skills
- 5.0 Analyze growth and development of humans
- 6.0 Examine responsibility for personal wellness
- 7.0 Integrate strategies for life and career success
- 8.0 Practice skills for teamwork and leadership
- 8.0 Evaluate balancing family, work and community
- 9.0 Analyze family units based on social, cultural, economic and psychological factors
- 10.0 Develop resource management skills
- 11.0 Explore careers
- 12.0 Develop employability skills
- 13.0 Demonstrate job search skills

LEVEL II COMPETENCIES BY PROGRAM

Programs	Applied Biological Systems- Agriculture	Applied Biological Systems- Food Science	Applied Biological Systems- Health	Life Connections	Industrial Technology	Information Technology	Business Management Technology
Accounting and Related Services						o	•
Administrative Information Services							•
Ag Business Mgmt: Agriscience	•						o
Ag Business Mgmt: Horticulture	•						o
Ag Bus Mgmt: Renewable Natural Resources	•						o
Allied Health Services			•				
Automotive Technologies					•		o
Business Information Technology Services						•	o
Business Management and Administrative Services						o	•
Construction Technologies					•		o
Cosmetology			o	•			o
Culinary Arts		•		o			o
Drafting/Design Technology					o	•	
Early Childhood Professions		o		•			o
Education Professions				•			
Electrical & Power Transmission Technology					•	o	o
Electronics Technology					•	o	o
Fashion Design and Merchandising				•		o	o

- Level II competencies students **should** take
- o Additional Level II competencies students **may** elect to take

LEVEL II COMPETENCIES BY PROGRAM

Programs	Applied Biological Systems- Agriculture	Applied Biological Systems- Food Science	Applied Biological Systems- Health	Life Connections	Industrial Technology	Information Technology	Business Management Technology
Financial Services				o			•
Fire Science	o			o	•		
Graphic Communications					o	•	
Heating, Ventilation and Air Conditioning					•	o	o
Heavy Equipment Operation					•		o
Hospitality Management				•			o
Law, Public Safety and Security				•		o	o
Marketing, Management and Entrepreneurship				o		o	•
Nursing Services			•	o			
Precision Metal Working					•		o
Radio/Television Technology					o	•	o
Woodworking					•		o

- Level II competencies students **should** take
- o Additional Level II competencies students **may** elect to take

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ACCOUNTING AND RELATED SERVICES

PROGRAM CODE: 52.0300

DESCRIPTION: Level III

Accounting and Related Services is defined as an instructional program which prepares students with business knowledge and accounting technical skills for careers in accounting. A student completing this program will also possess the foundation skills needed for post secondary education in the accounting profession.

Accounting and Related Services competencies include:

- 1.0 Perform general ledger functions
- 2.0 Perform accounts payable functions
- 3.0 Perform accounts receivable functions
- 4.0 Perform payroll functions
- 5.0 Perform general accounting and functions
- 6.0 Utilize technology to support accounting functions
- 7.0 Demonstrate customer service skills
- 8.0 Conduct a job search
- 9.0 Secure a job
- 10.0 Succeed on the job

ADMINISTRATIVE INFORMATION SERVICES

PROGRAM CODE: 52.0400

DESCRIPTION: Level III

Administrative Information Services is defined as an instructional program that prepares students with skills to provide administrative and organizational assistance to internal and external customers. These professionals use a variety of office technology and computer-based business applications (data base, spreadsheet, word processing, graphics, etc.,) and are often called upon to be in-house experts on adapting such technology applications to the varied needs of their internal/external customers. They also support and help facilitate accurate communication and processing of information to the right customers at the right times.

Administrative Information Services competencies include:

- 1.0 Identify and satisfy customer needs and plan work activities
- 2.0 Manage schedules, activities and events
- 3.0 Prepare and maintain financial information
- 4.0 Generate and maintain documents and information
- 5.0 Manage resources
- 6.0 Develop, implement and evaluate work processes and procedures
- 7.0 Initiate and facilitate communication
- 8.0 Conduct a job search
- 9.0 Secure a job
- 10.0 Succeed on the job

AGRICULTURAL BUSINESS MANAGEMENT – AGRISCIENCE

PROGRAM CODE: 01.0300

DESCRIPTION: Level III

Use all the competencies identified for either Animal Science or Plant Science listed below, until the new program for Agriscience is developed.

Agricultural Business Management Animal Science competencies include:

- 1.0 Practice personal and human relations skills in career development
- 2.0 Demonstrate business management practices
- 3.0 Demonstrate financial management practices
- 4.0 Apply approved practices in purchasing/marketing to maximize profit
- 5.0 Apply approved practices of animal feeding and nutrition
- 6.0 Apply approved practices in animal breeding and reproduction
- 7.0 Apply approved practices of animal health
- 8.0 Describe biotechnology techniques used in animal production
- 9.0 Construct and maintain animal facilities and equipment
- 10.0 Apply approved practices for environmental control of confined animals
- 11.0 Apply approved practices in laying concrete for facilities
- 12.0 Apply approved practices in using woodworking to construct animal facilities
- 13.0 Apply approved practices in using metalworking to construct animal facilities
- 14.0 Apply approved safety practices when working with animals
- 15.0 Conduct a job search
- 16.0 Secure a job
- 17.0 Succeed on the job

Agricultural Business Management Plant Science competencies include:

- 1.0 Demonstrate personal and human relations skills
- 2.0 Demonstrate business management practices
- 3.0 Demonstrate financial management practices
- 4.0 Apply approved practices in purchasing/marketing to maximize profit
- 5.0 Demonstrate approved seed selection and germination practices
- 6.0 Demonstrate approved biotechnology techniques in plant production
- 7.0 Identify approved practices in renewable and natural resources
- 8.0 Design, construct and operate irrigation systems
- 9.0 Manage a pest control program

AGRICULTURAL BUSINESS MANAGEMENT – AGRISCIENCE, CONTINUED

- 10.0 Manage a plant disease control program
- 11.0 Manage a weed control program
- 12.0 Apply approved practices in plant nutrition
- 13.0 Harvest crops to ensure maximum yield
- 14.0 Operate and maintain equipment used for plant production
- 15.0 Construct and maintain facilities and equipment
- 16.0 Apply approved construction principles of plant science
- 17.0 Apply approved safety practices
- 18.0 Conduct a job search
- 19.0 Secure a job
- 20.0 Succeed on the job

AGRICULTURAL BUSINESS MANAGEMENT - HORTICULTURE

PROGRAM CODE 01.0600

DESCRIPTION: Level III

The Agricultural Business Management-Horticulture program is designed to prepare students for employment in various production, sales and supply positions related to horticulture. Specific careers include: landscape design, installation and maintenance, nursery management; biotechnology and turf grass management. In addition to required technical skills, students will possess leadership skills, advanced employability skills, applied academics and life management skills.

Agricultural Business Management Horticulture competencies include:

- 1.0 Demonstrate personal and human relations skills
- 2.0 Demonstrate business management practices
- 3.0 Demonstrate business accounting practices
- 4.0 Demonstrate sales and merchandising techniques
- 5.0 Identify and select ornamental plants
- 6.0 Operate and maintain plant growth structures
- 7.0 Propagate, grow and maintain nursery stock
- 8.0 Design landscapes
- 9.0 Install landscapes
- 10.0 Construct hardscapes
- 11.0 Apply approved practices in laying concrete
- 12.0 Install and maintain residential and commercial turf
- 13.0 Perform golf course maintenance practices
- 14.0 Design, construct and operate irrigation systems
- 15.0 Maintain exterior landscapes
- 16.0 Maintain interior landscapes
- 17.0 Design and prepare floral arrangements
- 18.0 Produce fruit, nut and vegetable crops
- 19.0 Apply approved safety practices in horticultural occupations
- 20.0 Apply fertilizer and chemicals
- 21.0 Operate and maintain horticultural equipment
- 22.0 Conduct a job search
- 23.0 Secure a job
- 24.0 Succeed on the job

AGRICULTURAL BUSINESS MANAGEMENT - RENEWABLE NATURAL RESOURCES

PROGRAM CODE: 03.0200

DESCRIPTION: Level III

The Agricultural Business Management - Renewable Natural Resources program is designed to prepare students for employment in various occupations related to fisheries, wildlife, range management, forestry, ecology and environmental science.

Students completing this program will possess the technical knowledge and skills associated with natural resources careers. In addition to the required technical skills, students will possess leadership skills, advanced employability skills, communication skills, critical thinking skills, applied academics and life management skills.

Agricultural Business Management Renewable Natural Resources competencies include:

- 1.0 Demonstrate personal and human relations skills
- 2.0 Demonstrate business management practices
- 3.0 Demonstrate approved safety practices to natural resources occupations
- 4.0 Describe environmental sciences
- 5.0 Describe the ecology of natural resources
- 6.0 Describe soil and water management practices
- 7.0 Describe range management practices
- 8.0 Demonstrate wildlife management practices
- 9.0 Demonstrate fisheries management practices
- 10.0 Demonstrate forestry practices
- 11.0 Describe renewable energy resources
- 12.0 Describe air resources
- 13.0 Operate and maintain equipment and machinery
- 14.0 Construct and maintain facilities and equipment
- 15.0 Apply approved practices in laying concrete for facilities
- 16.0 Apply approved practices in using woodworking to construct facilities
- 17.0 Apply approved practices in using metalworking to construct facilities
- 18.0 Conduct a job search
- 19.0 Secure a job
- 20.0 Succeed on the job

ALLIED HEALTH SERVICES

PROGRAM CODE: 51.0800

DESCRIPTION: Level III

The Allied Health Services program is designed to prepare students for employment or post secondary education in one of four options: Option A-Pharmacy Support Services, Option B-Laboratory Assisting, Option C-Medical Imaging Support Services, or Option D-Sports Medicine and Rehabilitation Therapies. A student completing this program will develop technical knowledge and skills, advanced employability skills including critical and conceptual thinking skills, applied academics and life management skills.

Allied Health Services competencies include:

Pharmacy Support Services Option A

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communication skills
- 5.0 Demonstrate written communication skills
- 6.0 Evaluate the role of healthcare in the economy
- 7.0 Demonstrate business and financial management practices needed in healthcare systems
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by career and technical student organizations
- 10.0 Demonstrate a caring approach and attitude
- 11.0 Resolve misunderstandings and/or conflicts in the work setting
- 12.0 Practice efficient problem-solving
- 13.0 Organize tasks and responsibilities
- 14.0 Adapt to continuing change in the workplace
- 15.0 Demonstrate ethical and legal conduct in all job-related activities
- 16.0 Demonstrate professional image and workplace decorum
- 17.0 Use standard precautions and safety measures when performing work
- 18.0 Use appropriate medical terminology
- 19.0 Use mathematical procedures and protocols
- 20.0 Demonstrate ability to use standard life support CPR and first aid
- 21.0 Assess the variety of careers in the field of pharmacy
- 22.0 Collect pertinent information from customers/patients for the pharmacist

ALLIED HEALTH SERVICES, CONTINUED

- 23.0 Screen prescription/medication orders for completeness and authenticity
- 24.0 Prepare medications for distribution
- 25.0 Differentiate between the use and side effects of prescription and nonprescription medications to treat common diseases
- 26.0 Distribute medications
- 27.0 Use appropriate procedures for collection of payment and billing for pharmacy services or goods
- 28.0 Control the inventory of medications, equipment and devices according to an established plan
- 29.0 Maintain pharmacy documentation, equipment and facilities
- 30.0 Demonstrate activities that reflect currency in the practice of the technician role

Laboratory Assisting Option B

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communication skills
- 5.0 Demonstrate written communication skills
- 6.0 Evaluate the role of healthcare in the economy
- 7.0 Demonstrate business and financial management practices needed in healthcare systems
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by career and technical student organizations
- 10.0 Demonstrate a caring approach and attitude
- 11.0 Resolve misunderstandings and/or conflicts in the work setting
- 12.0 Practice efficient problem-solving
- 13.0 Organize tasks and responsibilities
- 14.0 Adapt to continuing change in the workplace
- 15.0 Demonstrate ethical and legal conduct in all job-related activities
- 16.0 Demonstrate professional image and workplace decorum
- 17.0 Use standard precautions and safety measures when performing work
- 18.0 Use appropriate medical terminology
- 19.0 Use mathematical procedures and protocols

ALLIED HEALTH SERVICES, CONTINUED

- 20.0 Demonstrate ability to use standard life support CPR and first aid
- 21.0 Assess the variety of careers in the laboratory
- 22.0 Maintain standards in the laboratory
- 23.0 Demonstrate proper application of aseptic techniques in the laboratory
- 24.0 Conduct the phlebotomy procedure in a laboratory setting
- 25.0 Apply procedures related to selected specimen collection
- 26.0 Assure appropriate laboratory documentation and quality control
- 27.0 Maintain laboratory inventory and environment
- 28.0 Demonstrate activities that reflect currency in the practice of the assistant role

Medical Imaging Support Services Option C

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communication skills
- 5.0 Demonstrate written communication skills
- 6.0 Evaluate the role of healthcare in the economy
- 7.0 Demonstrate business and financial management practices needed in healthcare systems
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by career and technical student organizations
- 10.0 Demonstrate a caring approach and attitude
- 11.0 Resolve misunderstandings and/or conflicts in the work setting
- 12.0 Practice efficient problem-solving
- 13.0 Organize tasks and responsibilities
- 14.0 Adapt to continuing change in the workplace
- 15.0 Demonstrate ethical and legal conduct in all job-related activities
- 16.0 Demonstrate professional image and workplace decorum
- 17.0 Use standard precautions and safety measures when performing work
- 18.0 Use appropriate medical terminology
- 19.0 Use mathematical procedures and protocols
- 20.0 Demonstrate ability to use standard life support CPR and first aid

ALLIED HEALTH SERVICES, CONTINUED

- 21.0 Assess the variety of roles in the medical imaging field
- 22.0 Demonstrate ability to safely transport patients into, within and out of the department
- 23.0 Support safe patient centered care
- 24.0 Prepare pre and post procedure room
- 25.0 Process films and ensure film processing equipment quality control
- 26.0 Demonstrate radiation safety
- 27.0 Maintain documentation and equipment for medical imaging procedures
- 28.0 Demonstrate activities that reflect currency in the practice of the assistant role

Sports Medicine and Rehabilitation Therapies Option D

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-base learning experiences
- 4.0 Demonstrate oral communication skills
- 5.0 Demonstrate written communication skills
- 6.0 Evaluate the role of healthcare in the economy
- 7.0 Demonstrate business and financial management practices needed in healthcare systems
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by career and technical student organizations
- 10.0 Demonstrate a caring approach and attitude
- 11.0 Resolve misunderstandings and/or conflicts in the work setting
- 12.0 Practice efficient problem-solving
- 13.0 Organize tasks and responsibilities
- 14.0 Adapt to continuing change in the workplace
- 15.0 Demonstrate ethical and legal conduct in all job-related activities
- 16.0 Demonstrate professional image and workplace decorum
- 17.0 Use standard precautions and safety measures when performing work
- 18.0 Use appropriate medical terminology
- 19.0 Use mathematical procedures and protocols
- 21.0 Demonstrate ability to use standard life support CPR and first aid

ALLIED HEALTH SERVICES, CONTINUED

- 22.0 Assess the variety of roles in the fields of sports medicine and rehabilitation
- 23.0 Determine critical factors in providing support and care in sports medicine and rehabilitation
- 24.0 Summarize knowledge of the body's systems and its development across the life span
- 25.0 Appraise wellness and health promotion
- 26.0 Promote safety and injury prevention
- 27.0 Assess the impact of injuries, sports trauma and physical dysfunctions/disorders on individuals
- 28.0 Support a regimen of therapeutic and mobility exercise and training and reconditioning
- 29.0 Use selected therapy modalities
- 30.0 Support communication of required information and maintenance of needed supplies
- 31.0 Demonstrate activities that reflect currency in the practice of the assistant role

AUTOMOTIVE TECHNOLOGIES

PROGRAM CODE: 47.0600

DESCRIPTION: Level III

The Automotive Technologies program is designed to prepare individuals for jobs in maintenance and mechanical repair or auto body repair of cars and light trucks. The program is comprised of a core curriculum and two options: option A is Automotive Technology and option B is Autobody/Collision Repair. The occupational competencies for both options are aligned with National Automotive Technicians Education Foundation (NATEF) Standards. Students completing these options should be prepared to pass the Automotive Service Excellence (ASE) exams. The Automotive Technology Option A will deliver core curriculum and four competency areas in: brakes, electrical/electronics systems, steering and suspension systems and engine performance. Autobody/Collision Repair Option B will deliver the core curriculum and five competency areas: assembly and assembly repairs, structural repairs, metal, plastic and fiberglass repairs, preparing and finishing surfaces and appropriate paint and refinishing techniques. An integrated approach to teaching and learning is essential for students to succeed as employees in automotive service occupations.

Automotive Technologies competencies include:

Automotive Technology Option A

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral-communication skills
- 5.0 Demonstrate written communication skills
- 6.0 Evaluate the role of small business in the economy
- 7.0 Demonstrate business and financial management practices needed for entrepreneurs
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by career and technical student organizations
- 10.0 Determine appropriate tool care and define a safe work environment
- 11.0 Process work orders for service and/or repair
- 12.0 Evaluate performance and implement brake repair
- 13.0 Evaluate and implement repairs to electrical/electronic systems
- 14.0 Perform repairs to steering and suspension systems
- 15.0 Implement general engine performance diagnosis and repair

AUTOMOTIVE TECHNOLOGIES, CONTINUED

Autobody/Collision Repair Option B

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communication skills
- 5.0 Demonstrate written communication skills
- 6.0 Evaluate the role of small business in the economy
- 7.0 Demonstrate business and financial management practices needed for entrepreneurs
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by career and technical student organizations
- 10.0 Apply appropriate safety and maintenance principles
- 11.0 Prepare analysis and damage reports
- 12.0 Complete disassembly and assembly repairs
- 13.0 Perform structural repair skills
- 14.0 Implement metal, plastic and fiberglass repairs
- 15.0 Prepare and finish surfaces
- 16.0 Select and implement appropriate paint and refinishing techniques

BUSINESS INFORMATION TECHNOLOGY SERVICES

PROGRAM CODE: 15.1200

DESCRIPTION: Level III

This program prepares individuals for careers involved with the design, development, support and management of hardware, software, multimedia and systems integration services in business environments. The program includes instruction in accounting information systems, management control systems, data storage and retrieval, business systems networking, computer equipment and operation and management information systems planning. The program will provide opportunities to attain specified Arizona academic standards.

Business Information Technology Services competencies include:

Computer Maintenance Option A

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communication skills
- 5.0 Demonstrate written communication skills
- 6.0 Evaluate the role of small business in the economy
- 7.0 Demonstrate business and financial management practices needed for entrepreneurs
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by career and technical student organizations
- 10.0 Demonstrate work ethics
- 11.0 Evaluate the role of ethics in an electronic communications environment
- 12.0 Demonstrate workplace safety in an electronic/electrical environment
- 13.0 Describe the functions of basic information handling systems and their components
- 14.0 Use computerized information in a business setting
- 15.0 Describe the development/evolution of the computer
- 16.0 Demonstrate the comprehension of basic computer mathematics
- 17.0 Communicate with technology users
- 18.0 Install application software
- 19.0 Use electronic/electrical tools and testing/measuring instruments
- 20.0 Install computers and peripherals
- 21.0 Protect computer/hardware system

BUSINESS INFORMATION TECHNOLOGY SERVICES, CONTINUED

22.0 Repair/maintain computers and peripherals

Network Technology Option B

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communication skills
- 5.0 Demonstrate written communication skills
- 6.0 Evaluate the role of small business in the economy
- 7.0 Demonstrate business and financial management practices needed for entrepreneurs
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by career and technical student organizations
- 10.0 Demonstrate work ethics
- 11.0 Evaluate the role of ethics in an electronic communications environment
- 12.0 Demonstrate workplace safety in an electronic/electrical environment
- 13.0 Describe the functions of basic information handling systems and their components
- 14.0 Use computerized information in a business setting
- 15.0 Describe the development/evolution of the computer
- 16.0 Demonstrate the comprehension of basic computer mathematics
- 17.0 Communicate with technology users
- 18.0 Install application software
- 19.0 Use electronic/electrical tools and testing/measuring instruments
- 20.0 Demonstrate knowledge of network architecture and technologies
- 21.0 Install basic networks
- 22.0 Manage network operations
- 23.0 Perform maintenance on network

Software Development Option C

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communication skills

BUSINESS INFORMATION TECHNOLOGY SERVICES, CONTINUED

- 5.0 Demonstrate written communication skills
- 6.0 Evaluate the role of small business in the economy
- 7.0 Demonstrate business and financial management practices needed for entrepreneurs
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by career and technical student organizations
- 10.0 Demonstrate work ethics
- 11.0 Evaluate the role of ethics in an electronic communications environment
- 12.0 Demonstrate workplace safety in an electronic/electrical environment
- 13.0 Describe the functions of basic information handling systems and their components
- 14.0 Use computerized information in a business setting
- 15.0 Describe the development/evolution of the computer
- 16.0 Demonstrate the comprehension of basic computer mathematics
- 17.0 Communicate with technology users
- 18.0 Install application software
- 19.0 Determine software specifications and perform top level design
- 20.0 Design programs
- 21.0 Code and test programs
- 22.0 Verify program/system operation

Information Support and Services Option D

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communication skills
- 5.0 Demonstrate written communication skills
- 6.0 Evaluate the role of small business in the economy
- 8.0 Demonstrate business and financial management practices needed for entrepreneurs
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by career and technical students organizations
- 10.0 Demonstrate work ethics

BUSINESS INFORMATION TECHNOLOGY SERVICES, CONTINUED

- 11.0 Evaluate the role of ethics in an electronic communications environment
- 12.0 Demonstrate workplace safety in an electronic/electrical environment
- 13.0 Describe the functions of basic information handling systems and their components
- 14.0 Use computerized information in a business setting
- 15.0 Describe the development/evolution of the computer
- 16.0 Demonstrate the comprehension of basic computer mathematics
- 17.0 Communicate with technology users
- 18.0 Install application software
- 19.0 Perform data entry operations
- 20.0 Complete job run on system
- 21.0 Initiate customer dialogue
- 22.0 Follow diagnostic procedures
- 23.0 Perform technical support to correct problems
- 24.0 Complete follow up procedures

BUSINESS MANAGEMENT AND ADMINISTRATIVE SERVICES

PROGRAM CODE: 52.0200

DESCRIPTION: Level III

Business Management and Administrative Services is defined as an instructional program which prepares individuals to perform administrative, managerial, applied research and technical support services essential to the operation of a business enterprise. The program will provide opportunities to attain Arizona academic standards, supervised occupational experience and leadership development.

Business Management and Administrative Services competencies include:

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communication skills
- 5.0 Demonstrate written communication skills
- 6.0 Evaluate the role of small business in the economy
- 7.0 Demonstrate business and financial management practices
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by career and technical student organizations
- 10.0 Explain business functions within an organization
- 11.0 Explain business ethics
- 12.0 Discuss principles of economic systems
- 13.0 Discuss legal concepts that apply to business
- 14.0 Demonstrate marketing concepts
- 15.0 Determine personal responsibility and accountability activities consistent with established organizational goals
- 16.0 Demonstrate general management practices
- 17.0 Demonstrate administrative and communication functions
- 18.0 Demonstrate human resource management functions
- 19.0 Perform general office management functions
- 20.0 Use accounting information to make business decisions
- 21.0 Perform financial analyses to make business decisions
- 22.0 Use computerized information systems and technology

CONSTRUCTION TECHNOLOGIES

PROGRAM CODE: 46.0400

DESCRIPTION: Level III

The Construction Technologies program prepares individuals to apply technical knowledge and skills in the building, inspecting and maintaining of structures and related properties. Program competencies may include masonry, carpentry, electrical and power transmission installation, building/construction finishing, management, inspection and other construction-related applications.

Construction Technologies competencies include:

IN DEVELOPMENT

COSMETOLOGY

PROGRAM CODE: 12.0400

DESCRIPTION: Level III

The Cosmetology program is designed to prepare students for employment in various cosmetology and beauty establishments. A student completing this program will possess technical knowledge and skills associated with cosmetology, nail technology, hair styling, make-up, aesthetics and wig styling. Students completing this program will also gain knowledge of business/salon management. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics and life management skills.

Cosmetology competencies include:

- 1.0 Investigate cosmetology careers and opportunities for advancement
- 2.0 Demonstrate safety precautions and basic first-aid procedures
- 3.0 Demonstrate disinfection procedures
- 4.0 Classify chemicals used in a salon
- 5.0 Demonstrate scalp and hair treatment
- 6.0 Demonstrate haircutting techniques
- 7.0 Demonstrate styling techniques
- 8.0 Demonstrate chemical reformation (permanent waving) techniques
- 9.0 Demonstrate hair-relaxing techniques
- 10.0 Demonstrate curl reformation (overcurly hair)
- 11.0 Demonstrate hair color techniques
- 12.0 Demonstrate hair lightening (bleaching) and toning techniques
- 13.0 Demonstrate nail technology
- 14.0 Demonstrate facial treatments
- 15.0 Demonstrate professionalism
- 16.0 Demonstrate management skills
- 17.0 Conduct a job search
- 18.0 Secure a job
- 19.0 Succeed on the job

CULINARY ARTS

PROGRAM CODE: 12.0500

DESCRIPTION: Level III

The Culinary Arts program is designed to prepare students to apply technical knowledge and skills required for food production and service occupations in institutional and commercial food establishments. Skills developed in this program include food identification, food selection, food storage, safety and sanitation, personal hygiene and use of commercial food equipment. Nutrition, special diets and management of food establishments will also be addressed.

In addition to technical skills, the student completing Levels I, II and III will explore career opportunities in the field and develop critical thinking, employability, applied academic and life management skills. These include business, economic and leadership skills. Students will develop communication, human relations and employability skills needed to be successful in acquiring and holding a job.

Culinary Arts competencies include:

- 1.0 Apply sanitation, safety and first aid procedures
- 2.0 Use large commercial grade equipment
- 3.0 Use small commercial wares and equipment
- 4.0 Prepare bakery and pastry products
- 5.0 Prepare hot and cold foods
- 6.0 Demonstrate marketing and merchandising of food products
- 7.0 Perform front of the house duties
- 8.0 Manage food production inventory
- 9.0 Analyze careers in culinary arts
- 10.0 Conduct a job search
- 11.0 Secure a job
- 12.0 Succeed on the job

DRAFTING/DESIGN TECHNOLOGY

PROGRAM CODE: 15.1300

DESCRIPTION: Level III

The Drafting/Design Technology program is designed to offer students the necessary technical knowledge and skills to plan and prepare scale interpretations of engineering, design and architectural projects. The program includes instruction in the use of precision drawing instruments, computer-assisted design and drafting (CADD), sketching and illustration and interpreting specifications. In addition to technical skills, the student completing this program will possess critical thinking, employability, applied academic, life management, business, economic and leadership skills required for drafting occupations.

Drafting/Design Technology competencies include:

- 1.0 Use board drafting equipment, instruments and media
- 2.0 Demonstrate sketching, lettering and line skills
- 3.0 Demonstrate dimensioning and tolerancing skills
- 4.0 Construct orthographic projections
- 5.0 Construct pictorial drawings
- 6.0 Demonstrate geometric constructions
- 7.0 Explore descriptive geometry
- 8.0 Apply board drafting skills to computer aided design/drafting (CADD)
- 9.0 Investigate materials, processes and products
- 10.0 Apply problem-solving skills to produce a complete set of drawings
- 11.0 Demonstrate safety knowledge and safe work habits
- 12.0 Conduct a job search
- 13.0 Secure a job
- 14.0 Succeed on the job

EARLY CHILDHOOD PROFESSIONS

PROGRAM CODE: 13.1200

DESCRIPTION: Level III

The Early Childhood Professions program is designed to prepare students for employment in early childhood education in residential and institutional settings. The program includes instruction in child growth and development; child health, nutrition and safety; planning and supervision of developmentally appropriate play and learning activities; child guidance; relationships with family members; applicable legal and administrative requirements; and preparation for the development and management of effective early childhood programs and facilities.

Early Childhood Professions competencies include:

- 1.0 Demonstrate knowledge of physical growth and development
- 2.0 Demonstrate knowledge of cognitive development
- 3.0 Demonstrate knowledge of language development
- 4.0 Demonstrate knowledge of social and emotional development
- 5.0 Demonstrate effective teaching techniques
- 6.0 Promote social competence
- 7.0 Observe behavior and development of children
- 8.0 Examine legal and ethical policies and procedures
- 9.0 Demonstrate safety procedures
- 10.0 Demonstrate cleaning/sanitation skills
- 11.0 Assess physical well-being of children
- 12.0 Demonstrate personal care of children
- 13.0 Facilitate communication with families
- 14.0 Demonstrate knowledge of child nutrition
- 15.0 Analyze early childhood professions
- 16.0 Conduct a job search
- 17.0 Secure a job
- 18.0 Succeed on the job

EDUCATION PROFESSIONS

PROGRAM CODE: 13.1500

DESCRIPTION: Level III

The Education Professions program is designed to prepare students for employment or post secondary opportunities in the education field. The program provides instruction in education career choices, education structure and systems, theory, pedagogy, developmental stages, learning styles and methodology. The program also provides interactive experiences with children at different age levels, in a variety of content areas, in educational environments. Education Professions is designed to articulate with the Introduction to Education courses at the community colleges and para professional preparation programs. In addition to technical skills, students completing this program will develop advanced critical thinking skills, enhanced academic skills, develop civic responsibility, understand education as a consumer, develop employability and leadership skills.

Education Professions competencies include:

IN DEVELOPMENT

ELECTRICAL AND POWER TRANSMISSION TECHNOLOGY

PROGRAM CODE: 46.0300

DESCRIPTION: Level III

The Electrical and Power Transmission Technology program prepares individuals to install, operate, maintain, trouble shoot and repair residential electrical systems. Fundamentals of the electrical trade include the information and basic skills for identification and usage of materials, blueprint reading and the use of hand and power tools associated with residential wiring. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics and life management skills.

Electrical and Power Transmission Technology competencies include:

- 1.0 Demonstrate safe work habits
- 2.0 Identify tools and equipment needed to complete work in the electrical trades.
- 3.0 Select and identify material to meet local code
- 4.0 Read blueprint and schematics to determine location of work to be done
- 5.0 Compute service loads to meet local code
- 6.0 Rough in feeders, branch circuit cables and circuits to meet local code
- 7.0 Install lighting circuit fixtures to meet local code
- 8.0 Install environmental control components to meet local code
- 9.0 Install and maintain service entrance to meet local code
- 10.0 Install lighting fixtures to meet local code
- 11.0 Trim out electrical devices and appliances to meet local code
- 12.0 Plan and organize work to schedule manpower and materials
- 13.0 Install and maintain basic electrical circuits to meet local code
- 14.0 Install switch boxes and outlet boxes to meet local code
- 15.0 Maintain existing wiring to maintain longevity and safety of residence
- 16.0 Conduct a job search
- 17.0 Secure a job
- 18.0 Succeed on the job

ELECTRONICS TECHNOLOGY

PROGRAM CODE: 15.0300

DESCRIPTION: Level III

The Electronics Technology program prepares individuals to apply technical knowledge and skills in designing, building and troubleshooting passive and active electrical and electronic circuits, equipment and systems. Program may include instruction in safety, DC and AC Theory, test equipment, semiconductors and integrated circuits, amplifiers, oscillators, power supplies, digital signal processing and troubleshooting techniques.

Electronics Technology competencies include:

IN DEVELOPMENT

FASHION DESIGN AND MERCHANDISING

PROGRAM CODE: 52.1900

DESCRIPTION: Level III

The Fashion Design and Merchandising program is designed to prepare students for employment in various fashion design and production careers and sales, customer service and first-line supervisory positions in apparel wholesale and retail establishments. A student completing this program will possess the technical knowledge and skills associated with fashion design and production, apparel selection, purchase, sales and promotion. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics and life management skills.

Fashion Design and Merchandising competencies include:

- 1.0 Analyze the fashion design and merchandising industry
- 2.0 Examine business opportunities in fashion design and merchandising
- 3.0 Demonstrate store operation procedures
- 4.0 Demonstrate design techniques
- 5.0 Demonstrate garment construction techniques
- 6.0 Conduct a job search
- 7.0 Secure a job
- 8.0 Succeed on the job

FINANCIAL SERVICES

PROGRAM CODE: 52.0800

DESCRIPTION: Level III

Financial Services is defined as an instructional program to prepare students with knowledge and skills in financial investment and related services. With advanced training and/or post secondary education, students may be able to obtain management positions in these areas. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics and life management skills.

Financial Services competencies include:

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communication skills
- 5.0 Demonstrate written communication skills
- 6.0 Evaluate the role of small business in the economy
- 7.0 Demonstrate business and financial management practices needed for entrepreneurs
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by career and technical student organizations
- 10.0 Analyze the U.S. market economy in a global economy
- 11.0 Differentiate among products and services offered by financial and investment institutions
- 12.0 Analyze banking and related services
- 13.0 Analyze insurance services
- 14.0 Analyze types of asset risk management
- 15.0 Develop a financial plan
- 16.0 Examine security measures in financial institutions
- 17.0 Analyze business financial management
- 18.0 Investigate the roles of regulatory agencies
- 19.0 Demonstrate customer service skills
- 20.0 Utilize technical skills
- 21.0 Process financial documents

FIRE SCIENCE

PROGRAM CODE: 43.0200

DESCRIPTION: Level III

The Fire Science program is designed to prepare students for employment in fire prevention and firefighting careers, as well as providing orientation towards emergency medical technician, paramedic, hazardous materials and rescue techniques. A student completing this program will possess the basic technical knowledge and skills associated with the use and maintenance of tools and equipment in firefighting and procedures in emergency medical/first aid. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics and life management skills.

Fire Science competencies include:

- 1.0 Analyze the role and organization of the firefighting industry
- 2.0 Analyze employment in the firefighting industry
- 3.0 Demonstrate technology used by firefighters
- 4.0 Demonstrate safety procedures and protective equipment
- 5.0 Explain fire behavior
- 6.0 Demonstrate use of firefighting tools and equipment
- 7.0 Describe fire control methods
- 8.0 Demonstrate rescue/extrication and forcible entry procedures
- 9.0 Demonstrate fire prevention methods and public education
- 10.0 Describe fire service response to hazardous materials emergency
- 11.0 Analyze fire service response to medical emergencies
- 12.0 Investigate emergency vehicles and their operation
- 13.0 Demonstrate firefighting hydraulics
- 14.0 Demonstrate technical rescue techniques
- 15.0 Demonstrate wild land firefighting techniques
- 16.0 Demonstrate physical fitness
- 17.0 Conduct a job search
- 18.0 Secure a job
- 19.0 Succeed on the job

GRAPHIC COMMUNICATIONS

PROGRAM CODE: 10.0300

DESCRIPTION: Level III

The Graphic Communications program prepares individuals to apply technical knowledge and skills in the manufacture and distribution or transmission of graphic communications products. Program may include instruction in the prepress, press and postpress phases of production operations and processes such as offset lithography, flexography, gravure, letterpress, screen printing, foil stamping, digital imaging and other reproduction methods.

Graphic Communications competencies include:

IN DEVELOPMENT

HEATING, VENTILATION AND AIR CONDITIONING

PROGRAM CODE: 47.0200

DESCRIPTION: Level III

The Heating, Ventilation and Air Conditioning program prepares individuals to install, repair and maintain heating, ventilating and air conditioning/refrigeration systems using equipment necessary on the actual job and/or industry trainers. Information on the scientific principles of heat transfer, electrical, ventilation, hydronics and control systems is basic to the course. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics and life management skills.

Heating, Ventilation and Air Conditioning competencies include:

- 1.0 Demonstrate safe work habits
- 2.0 Explain the fundamentals of basic electricity
- 3.0 Interpret and apply codes for complying with regulations
- 4.0 Read and interpret charts, drawings and schematics needed for completing assigned job
- 5.0 Install duct work to meet job specifications requirements
- 6.0 Install equipment to meet code requirements
- 7.0 Install, start, troubleshoot and service control systems and equipment
- 8.0 Troubleshoot and service control systems and equipment
- 9.0 Conduct a job search
- 10.0 Secure a job
- 11.0 Succeed on the job

HEAVY EQUIPMENT OPERATION

PROGRAM CODE: 49.0200

DESCRIPTION: Level III

This instructional program prepares individuals to operate and maintain a variety of construction equipment such as: crawler dozers, paving machines, trenchers, motor graders, scrapers, front end loaders, back hoes, compaction equipment, pumps and compressors. The program includes start up and operating instruction, maintenance of construction equipment and the safety relating to equipment operation. Instruction in excavating, ditching, sloping, grading, compacting, backfilling as well as information relating to current technology in construction equipment operating systems will be included. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics and life management skills.

Heavy Equipment Operation competencies include:

- 1.0 Demonstrate safe work habits
- 2.0 **Demonstrate use of hand and power tools**
- 3.0 Perform equipment inspections
- 4.0 Identify the operation and transmission of power
- 5.0 Perform maintenance duties
- 6.0 Operate heavy equipment
- 7.0 Conduct a job search
- 8.0 Secure a job
- 9.0 Succeed on the job

HOSPITALITY MANAGEMENT

PROGRAM CODE: 52.0900

DESCRIPTION: Level III

The Hospitality Management program is designed to prepare students for employment in positions that provide customer-focused services in such facilities as hotels, resorts, convention centers, National parks, RV parks, travel agencies and cruise lines. A student completing this program will possess the knowledge and skills associated with reservations and front desk operations, meeting and banquet room support services, food and beverage support services, housekeeping, laundry operations, supervisory functions and environmental functions. In addition, students will possess advanced employability skills including critical and conceptual thinking, communications, applied academics and life management skills.

Hospitality Management competencies include:

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communication skills
- 5.0 Demonstrate written communication skills
- 6.0 Evaluate the role of small business in the economy
- 7.0 Demonstrate business and financial management practices needed for entrepreneurs
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by career and technical student organizations
- 10.0 Summarize the hospitality industry
- 11.0 Explain basic hotel departments and functions
- 12.0 Determine appropriate guest service strategies within the hospitality industry
- 13.0 Practice customer services functions
- 14.0 Characterize supervisory and management functions
- 15.0 Assess the role of human resources
- 16.0 Summarize management practices for the food industry
- 17.0 Demonstrate appropriate environmental functions
- 18.0 Demonstrate marketing skills needed in the hospitality industry

LAW, PUBLIC SAFETY AND SECURITY

PROGRAM CODE: 43.0100

DESCRIPTION: Level III

The Law, Public Safety and Security program is designed to prepare students for employment or post secondary education in law enforcement, public and private security and corrections. A student completing this program will develop technical knowledge and skills including critical and conceptual thinking skills, advanced employability skills, applied academics and life management skills.

Law, Public Safety and Security competencies include:

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communications skills
- 5.0 Demonstrate written communications skills
- 6.0 Evaluate the role of law, public safety and security in the economy
- 7.0 Determine a knowledge of financial practices necessary for the workplace
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by career and technical student organizations
- 10.0 Analyze the evolution of law enforcement
- 11.0 Analyze legal aspects of law enforcement
- 12.0 Compare and contrast safety precautions and procedures
- 13.0 Demonstrate first-aid procedures
- 14.0 Analyze investigative procedures
- 15.0 Examine police proficiency skills
- 16.0 Critique specialize federal services
- 17.0 Critique specialized local and mixed governmental services
- 18.0 Appraise corrections systems
- 19.0 Evaluate private security
- 20.0 Demonstrate academic mathematics and science skills appropriate for the workplace
- 21.0 Demonstrate knowledge and skill in the use of computer technology and related equipment

MARKETING, MANAGEMENT AND ENTREPRENEURSHIP

PROGRAM CODE: 52.1800

DESCRIPTION: Level III

Marketing, Management and Entrepreneurship is designed to prepare students for employment in various sales, customer service and/or first-line supervisory positions in wholesale, retail and service establishments. A student completing this program will possess the technical knowledge and skills associated with sales, marketing and related activities for broad categories of products and services. In addition to the required technical skills, students will possess advanced employability, critical thinking, applied academics, life management, business, economic and leadership skills required for employees in Marketing, Management and Entrepreneurship occupations.

Marketing, Management and Entrepreneurship competencies include:

Professional Sales and Marketing Option A

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communication skills
- 5.0 Demonstrate written communications skills
- 6.0 Describe the roles of small business
- 7.0 Demonstrate business and financial management practices needed for entrepreneurs
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by the career and technical student organization (DECA)
- 10.0 Explain fundamental business, management and entrepreneurial concepts that affect business decision making
- 11.0 Cultivate concepts and strategies needed to interact effectively with others
- 12.0 Analyze economic principles and concepts fundamental to marketing
- 13.0 Apply concepts and strategies needed for career exploration, development and growth.
- 14.0 Explain the concepts and processes associated with distribution
- 15.0 Analyze the financial concepts used in business decisions
- 16.0 Examine concepts, systems and tools needed to manage marketing information
- 18.0 Determine pricing strategies to maximize return and meet customer perceptions of value

MARKETING, MANAGEMENT AND ENTREPRENEURSHIP, CONTINUED

- 18.0 Explain the management of a product/service mix in response to market trends and opportunities
- 19.0 Select advertising and promotion strategies to communicate information
- 20.0 Critique selling concepts
- 21.0 Examine retail sales
- 22.0 Examine other sales pathways
- 23.0 Apply selling techniques
- 24.0 Exercise market research methods
- 25.0 Analyze advertising and public relations
- 26.0 Demonstrate visual merchandising and display techniques
- 27.0 Examine legal issues in sales
- 28.0 Develop a marketing plan

E-Commerce Option B

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communication skills
- 5.0 Demonstrate written communications skills
- 6.0 Evaluate the role of small business in the economy
- 7.0 Demonstrate business and financial management practices needed for entrepreneurs
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by the career and technical student organization (DECA).
- 10.0 Explain fundamental business, management and entrepreneurial concepts that affect business decision making
- 11.0 Cultivate concepts and strategies needed to interact effectively with others
- 12.0 Analyze economic principles and concepts fundamental to marketing
- 13.0 Apply concepts and strategies needed for career exploration, development and growth
- 14.0 Explain the concepts and processes associated with distribution
- 15.0 Analyze the financial concepts used in business decisions
- 16.0 Examine concepts, systems and tools needed to manage marketing information
- 17.0 Determine pricing strategies to maximize return and meet customer perceptions of value

MARKETING, MANAGEMENT AND ENTREPRENEURSHIP, CONTINUED

- 18.0 Explain the management of a product/service mix in response to market trends and opportunities
- 19.0 Select advertising and promotion strategies to communicate information
- 20.0 Critique selling concepts
- 21.0 Analyze the basics of E-Commerce
- 22.0 Evaluate the economic impact of E-Commerce
- 23.0 Explore E-Commerce delivery methods
- 24.0 Analyze the legal and ethical issues in E-Commerce
- 25.0 Analyze on-line advertising
- 26.0 Develop on-line pricing and selling strategies
- 25.0 Develop an E-Commerce web page

Entertainment Marketing Option C

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communication skills
- 5.0 Demonstrate written communication skills
- 6.0 Evaluate the role of small business in the economy
- 7.0 Demonstrate business and financial management practices needed for entrepreneurs
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by the career and technical student organization (DECA)
- 10.0 Explain fundamental business, management and entrepreneurial concepts that affect business decision making
- 11.0 Cultivate concepts and strategies needed to interact effectively with others
- 12.0 Analyze economic principles and concepts fundamental to marketing
- 13.0 Apply concepts and strategies needed for career exploration, development and growth
- 14.0 Explain the concepts and processes associated with distribution
- 15.0 Analyze the financial concepts used in business decisions
- 16.0 Examine concepts, systems and tools needed to manage marketing information
- 17.0 Determine pricing strategies to maximize return and meet customer perceptions of value
- 18.0 Explain the management of a product/service mix in response to market trends

MARKETING, MANAGEMENT AND ENTREPRENEURSHIP, CONTINUED

- and opportunities
- 19.0 Select advertising and promotion strategies to communicate information
- 20.0 Critique selling concepts
- 21.0 Survey sports marketing
- 22.0 Survey media marketing
- 23.0 Survey travel and tourism marketing
- 24.0 Survey hospitality marketing
- 25.0 Develop an entertainment marketing plan

Entrepreneurship Option D

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communication skills
- 5.0 Demonstrate written communication skills
- 6.0 Evaluate the role of small business in the economy
- 7.0 Demonstrate business and financial management practices needed for entrepreneurs
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by the career and technical student organization (DECA)
- 10.0 Explain fundamental business, management and entrepreneurial concepts that affect business decision making
- 11.0 Cultivate concepts and strategies needed to interact effectively with others
- 12.0 Analyze economic principles and concepts fundamental to marketing
- 13.0 Apply concepts and strategies needed for career exploration, development and growth
- 14.0 Explain the concepts and processes associated with distribution
- 15.0 Analyze the financial concepts used in business decisions
- 16.0 Examine concepts, systems and tools needed to manage marketing information
- 17.0 Determine pricing strategies to maximize return and meet customer perceptions of value
- 18.0 Explain the management of a product/service mix in response to market trends and opportunities
- 19.0 Select advertising and promotion strategies to communicate information
- 20.0 Critique selling concepts
- 21.0 Determine the importance of entrepreneurship

MARKETING, MANAGEMENT AND ENTREPRENEURSHIP, CONTINUED

- 22.0 Develop a business plan for a new business
- 23.0 Develop a marketing strategy for a new business
- 24.0 Investigate business set up
- 25.0 Develop a financial plan for a small business
- 26.0 Examine the role of human resources and management in the operation of a small business
- 27.0 Distinguish legal and ethical obligations of entrepreneurship
- 28.0 Determine a strategy for growth

NURSING SERVICES

PROGRAM CODE: 51.1600

DESCRIPTION: Level III

The Nursing Services program is designed to prepare students for employment in a variety of health care settings. Students who complete this program will have the technical knowledge and skills to take the Arizona examination to become a Certified Nursing Assistant (CNA) and the competencies to be accepted in a post secondary health care program. In addition to the required technical skills, students will have advanced employability skills including critical and conceptual thinking skills, applied academics and life management skills.

Nursing Services competencies include:

- 1.0 Function as a member of the health team in the health care industry
- 2.0 Demonstrate communication skills
- 3.0 Practice ethical and legal behavior
- 4.0 Analyze human body systems relative to common conditions and disorders and their care
- 5.0 Maintain a safe, clean, comfortable environment for the client
- 6.0 Demonstrate general principles of cleanliness (asepsis)
- 7.0 Assist the client in meeting nutritional needs
- 8.0 Provide basic emergency care
- 9.0 Demonstrate personal care and related procedures
- 10.0 Monitor vital signs
- 11.0 Facilitate activities related to elimination
- 12.0 Apply principles of body mechanics to positioning, transporting, transferring and ambulating the client
- 13.0 Assist client with restorative activities
- 14.0 Perform or assist with diagnostic testing and examinations
- 15.0 Care for client receiving heat and cold treatments
- 16.0 Care for client with behavior that compromises safety of self and/or others
- 17.0 Care for the perioperative client
- 18.0 Care for client with binders, bandages, dressings and anti-embolic devices
- 19.0 Assist with admission, transfer and discharge of client
- 20.0 Examine health-related issues of special populations
- 21.0 Care for the dying client and his/her family
- 22.0 Conduct a job search
- 23.0 Secure a job
- 24.0 Succeed on the job

PRECISION METAL WORKING

PROGRAM CODE: 48.0500

DESCRIPTION: Level III

The Precision Metal Working program is designed to prepare students for employment in machining or welding jobs. The program is comprised of a core curriculum and two specialty options: Welding Technology and Machining Technology. Welding Technology prepares individuals to apply technical knowledge and skills to join or cut metal surfaces. It includes instruction in areas such as arc welding, soldering, beam welding and safety applications. The Machining Technology option prepares individuals to apply technical knowledge and skills to plan, manufacture, assemble, test and repair parts, mechanisms, machines and structures that create formed materials. In addition to technical skills, students completing this program will develop leadership skills required for careers in Precision Metal Working occupations.

Welding Technology Option A

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communication skills
- 5.0 Demonstrate written communication skills
- 6.0 Evaluate the role of small business in the economy
- 7.0 Demonstrate business and financial management practices needed for entrepreneurs
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by career and technical student organizations
- 10.0 Maintain a safe work environment
- 11.0 Lay out and fit up project from blueprints
- 12.0 Set up and use cutting equipment
- 13.0 Set up and use shielded metal arc welding equipment
- 14.0 Set up and use gas metal arc welding equipment
- 15.0 Set up and use oxyfuel equipment
- 16.0 Set up and use gas tungsten arc welding equipment
- 17.0 Set up and use flux cored arc welding equipment
- 18.0 Use auxiliary equipment and tools
- 19.0 Perform weldment testing

PRECISION METAL WORKING, CONTINUED

Machining Technology Option B

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communication skills
- 5.0 Demonstrate written communication skills
- 6.0 Evaluate the role of small business in the economy
- 7.0 Demonstrate business and financial management practices needed for entrepreneurs
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by career and technical student organizations
- 10.0 Maintain a safe work environment
- 11.0 Perform measurement functions
- 12.0 Perform blueprint reading and layout
- 13.0 Demonstrate quality processes and procedures
- 14.0 Perform benchwork
- 15.0 Operate a drill press
- 16.0 Operate power saws
- 17.0 Operate lathes
- 18.0 Operate milling machines
- 19.0 Operate grinders
- 20.0 Perform computerized numeric control applications

RADIO/TELEVISION TECHNOLOGY

PROGRAM CODE: 10.0200

DESCRIPTION: Level III

The Radio/Television Technology program of study is designed to prepare students for entry-level employment in various communications industries such as radio and television broadcasting, film and video production, the internet and interactive media. Completers will experience the design, development, production, promotion and distribution of media products within these industries. In addition to the required technical skills, students will possess employability skills, critical and conceptual thinking, applied academics and life management skills.

Radio/Television Technology competencies include:

- 1.0 Demonstrate media literacy
- 2.0 Demonstrate technical skills for media
- 3.0 Demonstrate pre-production skills for media
- 4.0 Demonstrate media production
- 5.0 Demonstrate editing and post production skills
- 6.0 Investigate the role of promotion and advertising in media
- 7.0 Conduct a job search
- 8.0 Secure a job
- 9.0 Succeed on the job

WOODWORKING

PROGRAM CODE: 48.0700

DESCRIPTION: Level III

The Woodworking program prepares individuals to work in the field of millwork and Woodworking and to produce such articles as frames, molding, panels and residential/commercial cabinetry. Instruction includes job planning, drafting, material layout, cutting, shaping, assembling, finishing of wood pieces and installing hardware. It also contains information related to print reading, production, installation and computer applications. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics, life management and technology.

Woodworking competencies include:

- 1.0 Demonstrate safe work habits
- 2.0 Operate power and hand equipment
- 3.0 Estimate materials
- 4.0 Detailing and billing
- 5.0 Produce cabinets
- 6.0 Installation of cabinets
- 7.0 Conduct a job search
- 8.0 Secure a job
- 9.0 Succeed on the job

FY 2004 CTE Program List

Rank	CIP	Program Name	2002 Reference
1	51.1600	Nursing Services	51.1600 Nursing Services
2	52.0200	Business Management and Administrative Services	52.0200 Business Management & Administrative Services
3	15.1200	Business Information Technology Services	52.1200 Business Information Technology Services
4	43.0200	Fire Science	43.0200 Fire Science
5	15.1300	Drafting/Design Technology	48.0100 Drafting Technology
6	01.0600	Horticulture	01.0600 Horticulture
7	52.1900	Fashion Design and Merchandising	20.0300 Apparel Design & Merchandising
8	15.0300	Electronics Technology	47.0100 Electronics Technology
9	43.0100	Law, Public Safety and Security	43.0100 Law Enforcement
10	52.0400	Administrative Information Services	52.0400 Administrative Information Services
11	46.0300	Electrical and Power Transmission Technology	46.0300 Residential Electrician
12	13.1500	Education Professions	
13	47.0600	Automotive Technologies	47.0600 Vehicle Equipment Technicians
14	51.0800	Allied Health Services	51.0800 Allied Health Services
15	46.0400	Construction Technologies	46.0400 Building Maintenance 46.9900 Building Trades 46.0200 Carpentry
16	52.0300	Accounting and Related Services	52.0300 Accounting
17	52.0900	Hospitality Management	08.0900 Hospitality Services
18	48.0500	Precision Metal Working	48.0500 Precision Metal Workers
19	52.1800	Marketing, Management and Entrepreneurship	08.0700 Sales and Marketing
20	13.1200	Early Childhood Professions	20.0200 Early Childhood Professions
21	10.0200	Radio/Television Technology	10.0100 Media Communication
22	49.0200	Heavy Equipment Operation	49.0200 Heavy Equipment Operation
23	52.0800	Financial Services	52.0800 Financial Services
24	12.0500	Culinary Arts	12.0500 Food Production/Culinary Arts
25	47.0200	Heating, Ventilation and Air Conditioning	47.0200 Heating, Ventilation, Air Conditioning
26	10.0300	Graphic Communications	48.0200 Graphic Communication 50.0400 Visual Communications
27	03.0200	Renewable Natural Resources	03.0200 Renewable Natural Resources
28	12.0400	Cosmetology	12.0400 Cosmetology
29	48.0700	Woodworking	48.0700 Cabinetmaking
30	01.0300	Agriscience	01.0300 Agriscience

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Career and Technical Education Programs

Codes and Titles

52.0300 Accounting and Related Services

90.0000.10	Technological Foundations
99.0400.10	Business Management Technology
52.0300.10	Accounting and Related Services Technology
52.0300.20	Accounting Systems and Related Services
	-or-
52.0300.80	Accounting and Related Services- Cooperative Education

52.0400 Administrative Information Services

90.0000.10	Technological Foundations
99.0400.10	Business Management Technology
52.0400.10	Administrative Services
52.0400.20	Administrative Support Systems
	-or-
52.0400.80	Administrative Information Services- Cooperative Education

01.0300 Agricultural Business Management-Agriscience

90.0000.10	Technological Foundations
99.0300.20	Applied Biological Systems-Agriculture
01.0300.10	Agriscience
01.0300.20	Agriscience II
	-or-
01.0300.30	Agriscience Business Management
	-or-
01.0300.60	Agricultural Mechanics
	-or-
01.0300.80	Agriscience-Cooperative Education

01.0600 Agricultural Business Management-Horticulture

90.0000.10	Technological Foundations
99.0300.20	Applied Biological Systems-Agriculture
01.0600.10	Agriscience-Horticulture
01.0600.20	Agriscience II-Horticulture
	-or-
01.0600.30	Horticulture Business Management
	-or-
01.0600.60	Agricultural Mechanics
	-or-
01.0600.80	Horticulture-Cooperative Education

03.0200	Agricultural Business Management-Renewable Natural Resources	
	90.0000.10	Technological Foundations
	99.0300.20	Applied Biological Systems-Agriculture
	03.0200.10	Agriscience-Renewable Natural Resources
	03.0200.20	Agriscience II-Renewable Natural Resources
		-or-
	03.0200.30	Renewable Natural Resources Business Management
		-or-
	03.0200.60	Agricultural Mechanics
		-or-
	03.0200.80	Renewable Natural Resources-Cooperative Education
51.0800	Allied Health Services	
	90.0000.10	Technological Foundations
	99.0300.30	Applied Biological Systems-Health
	51.0800.10	Fundamentals of Allied Health Services
	51.0800.20	Pharmacy Support Services
		-or-
	51.0800.30	Laboratory Assisting
		-or-
	51.0800.40	Medical Imaging Support Services
		-or-
	51.0800.50	Sports Medicine and Rehabilitation Therapies
		-And program may elect to add:
	51.0800.80	Allied Health Services-Cooperative Education
47.0600	Automotive Technologies	
	90.0000.10	Technological Foundations
	99.0200.10	Industrial Technology
	47.0600.10	Automotive Technologies Core Curriculum
	47.0600.20	Automotive Technology I
		-and-
	47.0600.30	Automotive Technology II
		-or-
	47.0600.40	Autobody/Collision Repair I
		-and-
	47.0600.50	Autobody/Collision Repair II
		-And program may elect to add:
	47.0600.80	Automotive Technologies-Cooperative Education

15.1200	Business Information Technology Services	
	90.0000.10	Technological Foundations
	99.0100.10	Information Technology
	15.1200.10	Fundamentals of Business Information Technology Services
		-and-
	15.1200.20	Computer Maintenance
		-or-
	15.1200.30	Network Technology
		-or-
	15.1200.40	Software Development
		-or-
	15.1200.50	Information Support and Services
		-And program may elect to add:
	15.1200.80	Business Information Technology Services-Cooperative Education
52.0200	Business Management and Administrative Services	
	90.0000.10	Technological Foundations
	99.0400.10	Business Management Technology
	52.0200.10	Business Management/Administrative Services Fundamentals
		-and-
	52.0200.20	Business Office Operations
		-or-
	52.0200.30	Administrative Information Management
	52.0200.80	Business Management and Administrative Services-Cooperative Education
46.0400	Construction Technologies	
	90.0000.10	Technological Foundations
	99.0200.10	Industrial Technology
	46.0400.10	Construction Technologies Core Curriculum
	46.0400.20	Construction Technology I
		-and-
	46.0400.30	Construction Technology II
		-or-
	46.0400.40	Industrial Maintenance I
		-and-
	46.0400.50	Industrial Maintenance II
		-And program may elect to add:
	46.0400.80	Construction Technologies-Cooperative Education

12.0400	Cosmetology	
	90.0000.10	Technological Foundations
	99.0500.10	Life Connections
	12.0400.10	Fundamentals of Cosmetology
	12.0400.20	Cosmetology Advanced Applications
		-or-
	12.0400.80	Cosmetology-Cooperative Education
12.0500	Culinary Arts	
	90.0000.10	Technological Foundations
	99.0300.40	Applied Biological Systems-Food Science
	12.0500.10	Culinary Arts Principles
	12.0500.20	Culinary Arts Applications
		-or-
	12.0500.80	Culinary Arts-Cooperative Education
15.1300	Drafting/Design Technology	
	90.0000.10	Technological Foundations
	99.0100.10	Information Technology
	15.1300.10	Drafting/Design Technology Concepts
	15.1300.20	Drafting/Design Technology Advanced Applications
		-or-
	15.1300.80	Drafting/Design Technology - Cooperative Education
13.1200	Early Childhood Professions	
	90.0000.10	Technological Foundations
	99.0500.10	Life Connections
	13.1200.10	Early Childhood Professions Fundamentals
	13.1200.20	Early Childhood Professions Applications
		-or-
	13.1200.80	Early Childhood Professions- Cooperative Education
13.1500	Education Professions	
	90.0000.10	Technological Foundations
	99.0500.10	Life Connections
	13.1500.10	Education Professions Fundamentals
	13.1500.20	Education Professions Applications
		-And program may elect to add:
	13.1500.80	Education Professions-Cooperative Education

46.0300	Electrical and Power Transmission Technology	
	90.0000.10	Technological Foundations
	99.0200.10	Industrial Technology
	46.0300.10	Electrical Installation
	46.0300.20	Electrical and Power Transmission Technology Advanced Applications
		-or-
	46.0300.80	Electrical and Power Transmission Technology-Cooperative Education
15.0300	Electronics Technology	
	90.0000.10	Technological Foundations
	99.0200.10	Industrial Technology
	15.0300.10	Electronics Technology Core Curriculum
	15.0300.20	Basic Electricity Principles and Applications
	15.0300.30	Basic Electronics Principles and Applications
		-And program may elect to add:
	15.0300.40	Digital Electronics Principles and Applications
		-or-
	15.0300.50	Communication Electronics Principles and Applications
	15.0300.80	Electronics Technology-Cooperative Education
52.1900	Fashion Design and Merchandising	
	90.0000.10	Technological Foundations
	99.0500.10	Life Connections
	52.1900.10	Fashion Design and Merchandising Fundamentals
	52.1900.20	Fashion Design and Merchandising Applications
		-or-
	52.1900.80	Fashion Design and Merchandising- Cooperative Education
52.0800	Financial Services	
	90.0000.10	Technological Foundations
	99.0400.10	Business Management Technology
	52.0800.10	Financial Services Technology
	52.0800.20	Financial Services Systems
		-or-
	52.0800.80	Financial Services-Cooperative Education

43.0200	Fire Science	
	90.0000.10	Technological Foundations
	99.0200.10	Industrial Technology
	43.0200.10	Fundamentals of Fire Science
	43.0200.20	Fire Science Advanced Applications
		-or-
	43.0200.80	Fire Science-Cooperative Education
10.0300	Graphic Communications	
	90.0000.10	Technological Foundations
	99.0100.10	Information Technology
	10.0300.10	Graphic Communications Core Curriculum
	10.0300.20	Graphic Arts I
		-and-
	10.0300.30	Graphic Arts II
		-or-
	10.0300.40	Commercial Art I
		-and-
	10.0300.50	Commercial Art II
		-or-
	10.0300.60	Photo Imaging I
		-and-
	10.0300.90	Photo Imaging II
		-And program may elect to add:
	10.0300.80	Graphic Communications-Cooperative Education
47.0200	Heating, Ventilation and Air Conditioning	
	90.0000.10	Technological Foundations
	99.0200.10	Industrial Technology
	47.0200.10	Heating, Ventilation and Air Conditioning Fundamentals
	47.0200.20	Heating, Ventilation and Air Conditioning-Advanced Applications
		-or-
	47.0200.80	Heating, Ventilation and Air Conditioning-Cooperative Education
49.0200	Heavy Equipment Operation	
	90.0000.10	Technological Foundations
	99.0200.10	Industrial Technology
	49.0200.10	Heavy Equipment Operation Fundamentals
	49.0200.20	Construction Equipment Operation Advanced Applications
		-or-
	49.0200.80	Heavy Equipment Operation-Cooperative Education

52.0900	Hospitality Management	
	90.0000.10	Technological Foundations
	99.0500.10	Life Connections
	52.0900.10	Hospitality Management Principles
	52.0900.20	Hospitality Management Applications
		-or-
	52.0900.80	Hospitality Management-Cooperative Education
43.0100	Law, Public Safety and Security	
	90.0000.10	Technological Foundations
	99.0500.10	Life Connections
	43.0100.10	Fundamentals of Law, Public Safety and Security
	43.0100.20	Law, Public Safety and Security Advanced Applications
		-or-
	43.0100.80	Law, Public Safety and Security-Cooperative Education
52.1800	Marketing, Management and Entrepreneurship	
	90.0000.10	Technological Foundations
	99.0400.10	Business Management Technology
	52.1800.10	Marketing, Management and Entrepreneurship
	52.1800.20	Professional Sales and Marketing
		-or-
	52.1800.30	E-Commerce Marketing
		-or-
	52.1800.40	Entertainment Marketing
		-or-
	52.1800.50	Entrepreneurship
	52.1800.80	-And program may elect to add: Marketing, Management and Entrepreneurship-Cooperative Education
51.1600	Nursing Services	
	90.0000.10	Technological Foundations
	99.0300.30	Applied Biological Systems-Health
	51.1600.10	Fundamentals of Nursing Services
	51.1600.20	Nursing Services Advanced Applications
		-or-
	51.1600.80	Nursing Services-Cooperative Education

48.0500 Precision Metal Working

90.0000.10

99.0200.10

48.0500.10

48.0500.20

48.0500.30

48.0500.40

48.0500.50

48.0500.80

Technological Foundations

Industrial Technology

Precision Metal Working Core Curriculum

Welding Technology I

-and-

Welding Technology II

-or-

Machining Technology I

-and-

Machining Technology II

-And program may elect to add:Precision Metal Working-Cooperative
Education**10.0200 Radio/Television Technology**

90.0000.10

99.0100.10

10.0200.10

10.0200.20

10.0200.80

Technological Foundations

Information Technology

Radio/Television Technology

Fundamentals

Radio/Television Technology Ad-
vanced Applications**-or-**Radio/Television Technology-Cooperative
Education**48.0700 Woodworking**

90.0000.10

99.0200.10

48.0700.10

48.0700.20

48.0700.80

Technological Foundations

Industrial Technology

Woodworking Fundamentals

Woodworking Advanced Applications

-or-

Woodworking-Cooperative Education

Career and Technical Education Division

Mission Statement

*Providing leadership and
support for schools that
prepare students for
transition from school to
careers*

PROGRAM: Accounting and Related Services

PROGRAM
CIP CODE: 52.0300

DESCRIPTION: *The **Accounting and Related Services** instructional program prepares students to provide technical support to professional accountants and other financial management personnel. Instruction includes general accounting principles and practices, posting transactions to accounts, record keeping systems and accounting software operation. An integrated approach to teaching and learning is recommended as students develop interpersonal relations, career development skills and technical knowledge and skills associated with functions essential for a business operation. Students completing this program will be prepared to participate in teams to solve problems and think critically about business related issues and implement effective solutions. The program is designed and delivered as a coherent sequence of experiences using technical instruction, experiential learning, supervised occupational experience Cooperative Office Education (COE) and leadership development through the Career and Technical Student Organization, Future Business Leaders of America (FBLA).*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8 *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10 *The following course is recommended as part of a Comprehensive CTE ACCOUNTING AND RELATED SERVICES Program:*

99.0400.10 **Business Management Technology:** Students should complete this Level II cluster or attain these competencies.

99.0100.10 **Information Technology:** If Business Management Technology is not available, students may complete this Level II cluster or attain these competencies.

Accounting and Related Services (continued)

Level III
Grades
11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the state-designated Level III state-designated ACCOUNTING AND RELATED SERVICES competencies are addressed in this instructional sequence.

52.0300.10 ***Accounting and Related Services Technology:*** This course is recommended for students who have an interest in developing an understanding of creating and maintaining financial records for a business. The outcomes of this course are based on a set of competencies designed to prepare individuals to compute, classify and record numerical data to keep accurate financial records and prepare basic financial statements. A computer with business applications software is used by students to perform Accounting and Related Services tasks and other business competencies.

One of the following Level III courses will be included as part of the instructional sequence for this program:

52.0300.20 ***Accounting Systems and Related Services:*** The outcomes of this course are integrated into learning experiences allowing students to demonstrate the full range of Accounting and Related Services competencies through projects/ simulations.

52.0300.80 ***Accounting and Related Services-Cooperative Education:*** This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the ***Accounting and Related Services*** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE ACCOUNTING AND RELATED SERVICES PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Business Management Technology	CERTIFICATES	
	Types: BVT, SVT	Types: PVBM, SVBM, PVB, SVB, PVM, SVM
	<i>Approved Areas BUS, VDE, VME, VOE</i>	No Approvals Necessary
Information Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVB, SVB, PVI, SVI, PVM, SVM
	<i>Approved Areas ITT, VTT, BUS, VDE, VME, VOE</i>	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Accounting and Related Services	CERTIFICATES	
	Types: BVT, SVT	Types: PVBM, SVBM, PVB, SVB, PVM, SVM
	<i>Approved Areas BUS, VDE, VME, VOE</i>	No Approvals Necessary
Note:		
Teacher/Coordinator for 52.0300.80 is required to have a Cooperative Education Endorsement (CEN).		
Accounting and Related Services 52.0300.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE ACCOUNTING AND RELATED SERVICES PROGRAM			
CERTIFICATE TYPES:	APPROVED AREAS:		
BVT Basic Vocational Education Teacher	BUS Business Education		
PVB Provisional Vocational Business	ITT Industrial Technology Education		
PVBM Provisional Vocational Business and Marketing	VDE Vocational Distributive Education		
PVI Provisional Vocational Industrial Technology	VME Vocational Marketing Education		
PVM Provisional Vocational Marketing	VOE Vocational Office Education		
SVB Standard Vocational Business	VTT Vocational Trade and Technical Education		
SVBM Standard Vocational Business and Marketing	This Space Intentionally Blank		
SVI Standard Vocational Industrial Technology			
SVM Standard Vocational Marketing			
SVT Standard Vocational Education Teacher			
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			This Space Intentionally Blank

PROGRAM: Administrative Information Services

CIP CODE: 52.0400

DESCRIPTION: *The **Administrative Information Services** instructional program is designed to prepare students for employment in a variety of secretarial and administrative support positions requiring skill with various computer software applications, data-analysis, decision-making, communications skills and knowledge of cost effective business operations. The instruction is designed, planned and delivered as a coherent sequence, utilizing a delivery system which includes formal technical instruction, experiential learning, supervised cooperative work experience, Cooperative Office Education (COE) and leadership development through the Career and Technical Student Organization, Future Business Leaders of America (FBLA). The student completing this program will also develop advanced critical thinking, career development, applied academic, life management, business, economic and leadership skills required for employees in administrative information services occupations.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8 *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10 *The following course is recommended as part of a Comprehensive CTE ADMINISTRATIVE INFORMATION SERVICES Program:*

99.0400.10 **Business Management Technology:** Students should complete this Level II cluster or attain these competencies.

Administrative Information Services (continued)

Level III
Grades
11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the state-designated Level III ADMINISTRATIVE INFORMATION SERVICES competencies are addressed in this instructional sequence.

52.0400.10 **Administrative Services:** This course at Level III is recommended for students who have an interest in developing skills and acquiring knowledge of creating and maintaining business records and providing business support services. The outcomes of this course are based on a set of competencies designed to prepare students to manage records, work as a team member, perform basic bookkeeping functions, process business information and manage resources. A computer and other business technologies are tools used by students to perform administrative information processing competencies.

One of the following Level III courses will be included as part of the instructional sequence for this program:

52.0400.20 **Administrative Support Systems:** The outcomes of this course are integrated into learning experiences allowing students to demonstrate the full range of Administrative Information Services competencies through projects/ simulations.

52.0400.80 **Administrative Information Services-Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the **Administrative Information Services** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE ADMINISTRATIVE INFORMATION SERVICES PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Business Management Technology	CERTIFICATES	
	Types: BVT, SVT	Types: PVBM, SVBM, PVB, SVB, PVM, SVM
	<i>Approved Areas</i> BUS, VDE, VME, VOE	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Administrative Information Services	CERTIFICATES	
	Types: BVT, SVT	Types: PVBM, SVBM, PVB, SVB, PVM, SVM
	<i>Approved Areas</i> BUS, VDE, VME, VOE	No Approvals Necessary
Note:		
Teacher/Coordinator 52.0400.80 is required to have a Cooperative Education Endorsement (CEN).		
Administrative Information Services 52.0400.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

**CERTIFICATE ABBREVIATIONS FOR THE
ADMINISTRATIVE INFORMATION SERVICES PROGRAM**

CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	BUS Business Education
PVB Provisional Vocational Business	VDE Vocational Distributive Education
PVBM Provisional Vocational Business and Marketing	VME Vocational Marketing Education
PVM Provisional Vocational Marketing	VOE Vocational Office Education
SVB Standard Vocational Business	This Space Intentionally Blank
SVBM Standard Vocational Business and Marketing	
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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PROGRAM: Agricultural Business Management-Agriscience

PROGRAM

CIP CODE: 01.0300

DESCRIPTION: *The **Agricultural Business Management-Agriscience** program is designed to prepare students for employment in various production, sales and supplier positions related to the agriculture industry. Students completing this program will possess the technical knowledge and skills associated with agricultural science, production and health, marketing and sales positions. In addition to the required technical skills, students will also develop leadership, advanced employability, critical thinking, applied academic and life management skills. The program utilizes a delivery system made up of three essential components: formal instruction, experiential education, leadership and personal development through the Career and Technical Student Organization, FFA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8 *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10 *The following courses are recommended as part of a Comprehensive CTE AGRICULTURAL BUSINESS MANAGEMENT - AGRISCIENCE Program:*

99.0300.20 **Applied Biological Systems-Agriculture:** Students should attain these competencies in a coherent sequence of courses.

99.0400.10 **Business Management Technology:** If an Applied Biological System-Agriculture course is not available, students may also complete this Level II cluster or attain these competencies.

Agricultural Business Management-Agriscience (continued)

Level III
Grades
11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated AGRICULTURAL BUSINESS MANAGEMENT–AGRISCIENCE competencies are addressed in this instructional sequence.

01.0300.10 **Agriscience:** This course is designed to deliver the competencies associated with the science of plant and animal life and health.

One of the following Level III courses will be included as part of the instructional sequence for this program:

01.0300.20 **Agriscience II:** This course is designed to deliver the competencies associated with the production and processing of products derived from plants and animals.

01.0300.30 **Agriscience Business Management:** This course is designed to deliver the competencies associated with the management of a plant or animal production enterprise.

01.0300.80 **Agriscience-Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the **Agricultural Business Management-Agriscience** program.

The following Level III course may be included as a part of the instructional sequence for this program:

01.300.60 **Agricultural Mechanics:** This specialized course is an extension of the agricultural mechanics skills that are an integral part of the **Agricultural Business Management-Agriscience** Program. This course includes instruction in agricultural power units, the planning and selection of materials for the construction of agricultural facilities equipment and the mechanical practices associated with the management of livestock and animals.

TEACHER CERTIFICATION REQUIREMENTS FOR THE AGRICULTURAL BUSINESS MANAGEMENT - AGRISCIENCE PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Applied Biological Systems- Agriculture	CERTIFICATES	
	Types: BVT, SVT	Types: PVA, SVA
	Approved Areas AGR, VAG	No Approvals Necessary
Business Management Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB
	Approved Areas BUS, VDE, VME, VOE	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Agricultural Business Management - Agriscience	CERTIFICATES	
	Types: BVT, SVT	Types: PVA, SVA
	Approved Areas AGR, VAG	No Approvals Necessary
Note:		
Teacher/Coordinator for 01.0300.80 is required to have a Cooperative Education Endorsement (CEN).		
Agricultural Business Management-Agriscience 01.0300.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE AGRICULTURAL BUSINESS MANAGEMENT-AGRISCIENCE PROGRAM		
CERTIFICATE TYPES:	APPROVED AREAS:	
BVT Basic Vocational Education Teacher	AGR Agriculture Education	
PVA Provisional Vocational Agriculture	BUS Business Education	
PVB Provisional Vocational Business	VAG Vocational Agriculture	
PVBM Provisional Vocational Business and Marketing	VDE Vocational Distributive Education	
PVM Provisional Vocational Marketing	VME Vocational Marketing Education	
SVA Standard Vocational Agriculture	VOE Vocational Office Education	
SVB Standard Vocational Business	This Space Intentionally Blank	
SVBM Standard Vocational Business and Marketing		
SVM Standard Vocational Marketing		
SVT Standard Vocational Education Teacher		
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PROGRAM: Agricultural Business Management-Horticulture

PROGRAM

CIP CODE: 01.0600

DESCRIPTION: *The **Agricultural Business Management-Horticulture** program is designed to prepare students for employment in various production, sales and supplier positions related to the horticulture industry. Students completing this program will possess the technical knowledge and skills associated with nursery production, marketing and sales, landscape design, installation and maintenance positions. In addition to the required technical skills, students will also develop leadership, advanced employability, critical thinking, applied academic and life management skills. The program utilizes a delivery system made up of three essential components: formal instruction; experiential education, leadership and personal development through the Career and Technical Student Organization, FFA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8 *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10 *The following courses are recommended as part of a Comprehensive CTE AGRICULTURAL BUSINESS MANAGEMENT - HORTICULTURE Program:*

99.0300.20 **Applied Biological Systems-Agriculture:** Students should attain these competencies in a coherent sequence of courses.

99.0400.10 **Business Management Technology:** If an Applied Biological Systems-Agriculture course is not available students may also complete this Level II cluster or attain these competencies.

Agricultural Business Management-Horticulture (continued)

Level III
Grades
11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated AGRICULTURAL BUSINESS MANAGEMENT-HORTICULTURE competencies are addressed in this instructional sequence.

01.0600.10 **Agriscience-Horticulture:** This course is designed to deliver the competencies associated with the science of the horticulture industry.

One of the following Level III courses will be included as part of the instructional sequence for this program:

01.0600.20 **Agriscience II-Horticulture:** This course is designed to deliver the competencies associated with the design, installation and maintenance of a nursery and/or landscaping enterprise.

01.0600.30 **Horticulture Business Management:** This course is designed to deliver the competencies associated with the management of a nursery and/or landscaping enterprise.

01.0600.80 **Horticulture-Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the **Agricultural Business Management-Horticulture** program.

The following Level III course may be included as a part of the instructional sequence for this program:

01.0600.60 **Agricultural Mechanics:** This specialized course is an extension of the agricultural mechanics skills that are an integral part of the **Agricultural Business Management-Horticulture** Program. This course includes instruction in agricultural power units, the planning and selection of materials for the construction of agricultural facilities and equipment and the mechanical practices associated with irrigation, drainage, water conservation and erosion control.

TEACHER CERTIFICATION REQUIREMENTS FOR THE AGRICULTURAL BUSINESS MANAGEMENT-HORTICULTURE PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Applied Biological Systems- Agriculture	CERTIFICATES	
	Types: BVT, SVT	Types: PVA, SVA
	Approved Areas AGR, VAG	No Approvals Necessary
Business Management Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB
	Approved Areas BUS, VDE, VME, VOE	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Agricultural Business Management-Horticulture	CERTIFICATES	
	Types: BVT, SVT	Types: PVA, SVA
	Approved Areas AGR, VAG	No Approvals Necessary
Note:		
Teacher/Coordinator for 01.0600.80 is required to have a Cooperative Education Endorsement (CEN).		
Agricultural Business Management-Horticulture 01.0600.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE AGRICULTURAL BUSINESS MANAGEMENT - HORTICULTURE PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	AGR Agriculture Education
PVA Provisional Vocational Agriculture	BUS Business Education
PVB Provisional Vocational Business	VAG Vocational Agriculture
PVBM Provisional Vocational Business and Marketing	VDE Vocational Distributive Education
PVM Provisional Vocational Marketing	VME Vocational Marketing Education
SVA Standard Vocational Agriculture	VOE Vocational Office Education
SVB Standard Vocational Business	This Space Intentionally Blank
SVBM Standard Vocational Business and Marketing	
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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PROGRAM: Agricultural Business Management-Renewable Natural Resources

**PROGRAM
CIP CODE:** 03.0200

DESCRIPTION: *The **Agricultural Business Management-Renewable Natural Resources** program is designed to prepare students for employment in various production, supplier and service positions related to the renewable natural resources industry. Students completing this program will possess the technical knowledge and skills associated with fisheries/wildlife, forest/range production and management positions. In addition to the required technical skills, students will also develop leadership, advanced employability, critical thinking, applied academic and life management skills. The program utilizes a delivery system made up of three essential components: formal instruction, experiential education, leadership and personal development through the Career and Technical Student Organization, FFA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

**Level I
Grades
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

**Level II
Grades
9-10** *The following courses are recommended as part of a Comprehensive CTE AGRICULTURAL BUSINESS MANAGEMENT - RENEWABLE NATURAL RESOURCES Program:*

99.0300.20 **Applied Biological Systems-Agriculture:** Students should attain these competencies in a coherent sequence of courses.

99.0400.10 **Business Management Technology:** If an Applied Biological Systems-Agriculture course is not available students may also complete this Level II cluster or attain these competencies.

Agricultural Business Management - Renewable Natural Resources (continued)

Level III
Grades
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated **AGRICULTURAL BUSINESS MANAGEMENT - RENEWABLE NATURAL RESOURCES** competencies are addressed in this instructional sequence:*

03.0200.10 **Agriscience-Renewable Natural Resources:** This course is designed to deliver the competencies associated with the science of fish and wildlife resources.

One of the following Level III courses will be included as part of the instructional sequence for this program:

03.0200.20 **Agriscience II-Renewable Natural Resources:** This course is designed to deliver the competencies associated with the management of natural forest and range resources

03.0200.30 **Renewable Natural Resources Business Management:** This course is designed to deliver the competencies associated with the utilization and management of fish, wildlife, forest and range resources.

03.0200.80 **Renewable Natural Resources-Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the **Agricultural Business Management-Renewable Natural Resources** program.

The following Level III course may be included as a part of the instructional sequence for this program:

03.0200.60 **Agricultural Mechanics:** This specialized course is an extension of the agricultural mechanics skills that are an integral part of the **Agricultural Business Management-Renewable Natural Resources** Program. This course includes instruction in agricultural power units, the planning and selection of materials for the construction of agricultural facilities and equipment and the mechanical practices associated with drainage, water conservation and erosion control.

TEACHER CERTIFICATION REQUIREMENTS FOR THE AGRICULTURAL BUSINESS MANAGEMENT RENEWABLE NATURAL RESOURCES PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
	CERTIFICATES	
	Types: BVT, SVT	Types: PVA, SVA
Applied Biological Systems- Agriculture	<i>Approved Areas AGR, VAG</i>	No Approvals Necessary
	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB
	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB
Business Management Technology	<i>Approved Areas BUS, VDE, VME, VOE</i>	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
	CERTIFICATES	
	Types: BVT, SVT	Types: PVA, SVA
Agricultural Business Management-Renewable Natural Resources	<i>Approved Areas AGR, VAG</i>	No Approvals Necessary
Note:		
Teacher/Coordinator for 03.0200.80 is required to have a Cooperative Education Endorsement (CEN).		
Agricultural Business Management-Renewable Natural Resources 03.0200.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE AGRICULTURAL BUSINESS MANAGEMENT RENEWABLE NATURAL RESOURCES PROGRAM		
CERTIFICATE TYPES:	APPROVED AREAS:	
BVT Basic Vocational Education Teacher	AGR Agriculture Education	
PVA Provisional Vocational Agriculture	BUS Business Education	
PVB Provisional Vocational Business	VAG Vocational Agriculture	
PVBM Provisional Vocational Business and Marketing	VDE Vocational Distributive Education	
PVM Provisional Vocational Marketing	VME Vocational Marketing Education	
SVA Standard Vocational Agriculture	VOE Vocational Office Education	
SVB Standard Vocational Business	This Space Intentionally Blank	
SVBM Standard Vocational Business and Marketing		
SVM Standard Vocational Marketing		
SVT Standard Vocational Education Teacher		
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PROGRAM: Allied Health Services

**PROGRAM
CIP CODE:** 51.0800

DESCRIPTION: *The **Allied Health Services** program prepares students to perform technical services involved with planning, organizing, researching, directing and controlling functions and processes related to the provision of select healthcare services. An integrated approach to teaching and learning is provided as students develop interpersonal relations, career development skills and technical knowledge and skills associated with a core curriculum and pathway options of Pharmacy Support Services, Laboratory Assisting, Medical Imaging Support Services and Sports Medicine and Rehabilitation Therapies. Students completing this program will be prepared to participate in teams, solve problems, think critically and implement effective solutions. The program is designed and delivered as a coherent sequence of experiences using technical instruction, academic foundations, experiential learning, supervised occupational experience and leadership and personal development through the Career and Technical Student Organization, SkillsUSA-VICA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

**Level I
Grades
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

**Level II
Grades
9-10** *The following course is recommended as part of a Comprehensive CTE ALLIED HEALTH SERVICES Program:*

99.0300.30 **Applied Biological Systems-Health:** Students should complete this Level II cluster or attain these competencies.

**Level III
Grades
11-12** *The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated ALLIED HEALTH SERVICES competencies are addressed in this instructional sequence.*

Allied Health Services (continued)

51.0800.10 ***Fundamentals of Allied Health Services:*** This course prepares students to apply academic, employability and technical knowledge and skills related to common industry standards and practices of Allied Health Services.

One of the four Level III options (.20 or .30 or .40 or .50) will be included as part of the instructional sequence for this program:

51.0800.20 ***Pharmacy Support Services:*** This course prepares students to apply academic and technical knowledge and skills of the Pharmacy Technician in a clinical, medical or retail setting or to continue into post secondary education.

51.0800.30 ***Laboratory Assisting:*** This course prepares students to apply academic and technical knowledge and skills of Laboratory Assisting in a clinical or medical setting or to continue into post secondary education.

51.0800.40 ***Medical Imaging Support Services:*** This course prepares students to apply academic and technical knowledge and skills of the Medical Imaging Technical Assistant in a clinical or medical setting or to continue into post secondary education.

51.0800.50 ***Sports Medicine and Rehabilitation Therapies:*** This course prepares students to apply academic and technical knowledge and skills of Fitness Trainer or Physical Therapy Aide in a clinical, medical or retail setting or to continue into post secondary education.

-And program may elect to add:

51.0800.80 ***Allied Health Services-Cooperative Education:*** This course utilizes cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the ***Allied Health Services*** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE ALLIED HEALTH SERVICES PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Applied Biological Systems Health	CERTIFICATES	
	Types: BVT, SVT	Types: PVA, SVA, PVH, SVH
	Approved Areas VHO AGR, VAG	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Allied Health Services	CERTIFICATES	
	Types: BVT, SVT	Types: PVH, SVH
	Approved Areas VHO	No Approvals Necessary
Note:		
Teacher/Coordinator for 51.0800.80 is required to have a Cooperative Education Endorsement (CEN).		
Allied Health Services 51.0800.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE ALLIED HEALTH SERVICES PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	AGR Agriculture Education
PVA Provisional Vocational Agriculture	VAG Vocational Agriculture
PVH Provisional Vocational Health Occupations	VHO Vocational Health Occupations
SVA Standard Vocational Agriculture	This Space Intentionally Blank
SVH Standard Vocational Health Occupations	
SVT Standard Vocational Education Teacher	
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PROGRAM: Automotive Technologies

PROGRAM

CIP CODE: 47.0600

DESCRIPTION: *The **Automotive Technologies** program is designed to prepare individuals for jobs in maintenance and mechanical repair or autobody/collision repair of cars and light trucks. The program is comprised of a core curriculum and two options: option A is Automotive Technology and option B is Autobody/Collision Repair. The occupational competencies for both options are aligned with National Automotive Technicians Education Foundation (NATEF) Standards. Students completing the options should be prepared to pass the Automotive Service Excellence (ASE) exams in the respective areas.*

Secondary Automotive Technology Option A will deliver the core curriculum and four competency areas: 1) Repairing brake systems, 2) Repairing electrical/ electronics systems, 3) Repairing steering and suspension systems and 4) Engine performance diagnosis and repair. Minimum ASE certification requires individuals to pass ASE tests in the four competency areas at the secondary level.

Secondary Autobody/Collision Repair Option B will deliver the core curriculum and five competency areas: 1) Performing disassembly and assembly repairs, 2) Performing structural repairs, 3) Performing metal, plastic and fiberglass repairs, 4) Preparing and finishing surfaces and 5) Using appropriate paint and refinishing techniques.

An integrated approach to teaching and learning is recommended as students develop interpersonal relations, career development skills and technical knowledge and skills associated with functions essential for employees in automotive service occupations. The program is designed and delivered as a coherent sequence of experiences using technical instruction, experiential learning, supervised occupational experience, leadership and personal development through the career and technical student organization, Skills/USA-VICA.

Automotive Technologies (continued)

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8

The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:

90.0000.10 ***Technological Foundations:*** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10

The following courses are recommended as part of a Comprehensive CTE AUTOMOTIVE TECHNOLOGIES Program:

99.0200.10 ***Industrial Technology:*** Students should complete this Level II cluster or attain these competencies.

99.0400.10 ***Business Management Technology:*** Students may complete this Level II cluster or attain these competencies. This is recommended for students who have an interest in sole proprietorships, management and supervisory occupations.

Level III
Grades
11-12

The following describes the recommended courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated AUTOMOTIVE TECHNOLOGIES competencies are addressed in this instructional sequence.

47.0600.10 ***Automotive Technologies Core Curriculum:*** This course prepares the student to apply technical knowledge and skills in the safety, adjustment, maintenance, part replacement and repair of tools, equipment and machines.

Two of the following Level III courses (.20 & .30 or .40 & .50) will be included as part of the instructional sequence for this program:

47.0600.20 ***Automotive Technology I:*** This course prepares the individual to apply basic technical knowledge and skills in safety, adjustment, maintenance and parts replacement to repair automobiles and light trucks. Students are introduced to: a) brake systems; b) electric/ electronic systems; c) steering and suspension systems; and d) engine performance diagnosis and repair.

Automotive Technologies (continued)

47.0600.30 ***Automotive Technology II:*** This course prepares the individual to apply higher levels of technical knowledge and skills to maintain, diagnose and repair automobiles and light trucks. Students will gain in-depth knowledge needed to troubleshoot and identify malfunctioning components and sensors; and correct these problems in four areas: 1) brake systems; 2) electrical/electronic systems; 3) steering and suspension systems; and 4) engine performance analysis.

-or-

47.0600.40 ***Autobody/Collision Repair I:*** This course prepares individuals to apply basic technical knowledge and skills in five competency areas: 1) disassemble and assemble parts; 2) non-structural repair; 3) metal, plastic and fiberglass repairs; 4) prepare and finish surfaces; and 5) paint and refinishing techniques.

47.0600.50 ***Autobody/Collision Repair II:*** This course prepares the individual to apply higher levels of technical knowledge and skills to repair, reconstruct and finish automobile and light trucks bodies, fenders and external features. Includes instruction in five competency areas: 1) disassemble and assemble parts; 2) non-structural repairs; 3) metal, plastic and fiberglass repairs; 4) prepare and finish surfaces; and 5) paint and refinishing techniques.

-And program may elect to add:

47.0600.80 ***Automotive Technologies-Cooperative Education:*** This course utilizes cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the **Automotive Technologies** program.

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TEACHER CERTIFICATION REQUIREMENTS FOR THE AUTOMOTIVE TECHNOLOGIES PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Industrial Technology	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
	<i>Approved Areas ITT, VTT</i>	No Approvals Necessary
Business Management Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB
	<i>Approved Areas BUS, VDE, VME, VOE</i>	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Automotive Technologies	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
	<i>Approved Areas ITT, VTT</i>	No Approvals Necessary
Note:		
Teacher/Coordinator for 47.0600.80 is required to have a Cooperative Education Endorsement (CEN).		
Automotive Technologies 47.0600.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE AUTOMOTIVE TECHNOLOGIES PROGRAM			
CERTIFICATE TYPES:	APPROVED AREAS:		
BVT Basic Vocational Education Teacher	BUS Business Education		
PVB Provisional Vocational Business	ITT Industrial Technology Education		
PVBM Provisional Vocational Business and Marketing	VDE Vocational Distributive Education		
PVI Provisional Vocational Industrial Technology	VME Vocational Marketing Education		
PVM Provisional Vocational Marketing	VOE Vocational Office Education		
SVB Standard Vocational Business	VTT Vocational Trade and Technical Education		
SVBM Standard Vocational Business and Marketing	This Space Intentionally Blank		
SVI Standard Vocational Industrial Technology			
SVM Standard Vocational Marketing			
SVT Standard Vocational Education Teacher			
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PROGRAM: Business Information Technology Services

PROGRAM

CIP CODE: 15.1200

DESCRIPTION: *The **Business Information Technology Services** program is designed to prepare students for employment related to the information technology industry. Instruction provides an integrated approach for teaching skills in information technology. The program options are: a) Computer Maintenance, b) Network Technology, c) Software Development, d) Information Support and Services. An integrated approach to teaching and learning is recommended as students develop interpersonal relations, career development skills and technical knowledge and skills associated with functions essential for employees in business information technology services occupations. The program uses a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience and the Career and Technical Student Organization, FBLA or SkillsUSA-VICA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8

The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10

*The following courses are recommended as part of a Comprehensive CTE **BUSINESS INFORMATION TECHNOLOGY SERVICES** Program:*

99.0100.10 **Information Technology:** Students should complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who have an interest in sole proprietorships, management and supervisory occupations.

Business Information Technology Services (continued)

Level III
Grades
11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated BUSINESS INFORMATION TECHNOLOGY SERVICES competencies are addressed in this instructional sequence.

15.1200.10 **Fundamentals of Business Information Technology Services:** This course prepares the student to apply technical knowledge and skills in the safety, adjustment, maintenance, part replacement and repair of tools, equipment and machines.

One of the four Level III options (.20 or .30 or .40 or .50) will be included as part of the instructional sequence for this program:

15.1200.20 **Computer Maintenance:** This course prepares students to apply basic electronic theory and principles in diagnosing and repairing personal computers and input/output devices.

15.1200.30 **Network Technology:** This course prepares students to install terminals, routers and switches in setting up local area and wide area networks to support business operations.

15.1200.40 **Software Development:** This course prepares students to apply software theory and programming methods to the solution of business data problems.

15.1200.50 **Information Support and Services:** This course prepares students to assist users of personal computers by diagnosing problems they have in using application software packages.

-And program may elect to add:

15.1200.80 **Business Information Technology Services-Cooperative Education:** This course utilizes cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the **Business Information Technology Services** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE BUSINESS INFORMATION TECHNOLOGY SERVICES PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Information Technology	CERTIFICATES	
	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB, PVI, SVI
	Approved Areas ITT, VTT BUS, VDE, VME, VOE	No Approvals Necessary
Business Management Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB
	Approved Areas BUS, VDE, VME, VOE	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Business Information Technology Services	CERTIFICATES	
	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB, PVI, SVI
	Approved Areas ITT, VTT, BUS, VDE, VME, VOE	No Approvals Necessary
Note:		
Teacher/Coordinator for 52.1200.80 is required to have a Cooperative Education Endorsement (CEN).		
Business Information Technology Services 52.1200.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE BUSINESS INFORMATION TECHNOLOGY SERVICES PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	BUS Business Education
PVB Provisional Vocational Business	ITT Industrial Technology Education
PVBM Provisional Vocational Business and Marketing	VDE Vocational Distributive Education
PVI Provisional Vocational Industrial Technology	VME Vocational Marketing Education
PVM Provisional Vocational Marketing	VOE Vocational Office Education
SVB Standard Vocational Business	VTT Vocational Trade and Technical Education
SVBM Standard Vocational Business and Marketing	This Space Intentionally Blank
SVI Standard Vocational Industrial Technology	
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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PROGRAM: Business Management and Administrative Services

PROGRAM

CIP CODE: 52.0200

DESCRIPTION: *The **Business Management and Administrative Services** instructional program prepares students to perform technical support services involved with planning, organizing, researching, directing and controlling functions and processes related to the production, buying and selling of goods and services. An integrated approach to teaching and learning is recommended as students develop interpersonal relations, career development skills and technical knowledge and skills associated with functions essential for any business operation. Students completing this program will be prepared to participate in teams to solve problems and think critically about business related issues and implement effective solutions. The program is designed and delivered as a coherent sequence of experiences using technical instruction, experiential learning, supervised occupational experience Cooperative Office Educational Education (COE) and leadership and personal development through the career and technical student organization, Future Business Leaders of America (FBLA) or DECA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8 *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10 *The following course is recommended as part of a Comprehensive CTE BUSINESS MANAGEMENT AND ADMINISTRATIVE SERVICES Program:*

99.0400.10 **Business Management Technology:** Students should complete this Level II cluster or attain these competencies.

99.0100.10 **Information Technology:** Students may complete this Level II cluster to attain these competencies.

Business Management and Administrative Services (continued)

Level III
Grades
11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All of the state-designated Level III BUSINESS MANAGEMENT AND ADMINISTRATIVE SERVICES competencies are addressed in this instructional sequence.

52.0200.10 **Business Management/Administrative Services Fundamentals:** This course at Level III prepares students with technical skills and knowledge related to the economics, management and administrative support functions of business, which cut across industries.

One of the following Level III courses will be included as part of the instructional sequence for this program:

52.0200.20 **Business Office Operations:** This course includes instruction in applied research, business communications, principles of business law, public relations, information management, meeting planning and office supervisory skills.

52.0200.30 **Administrative Information Management:** This course includes instruction in integrated computer software applications as they apply to the technical support functions related to the operation of enterprise and buying and selling of goods and services.

52.0200.80 **Business Management and Administrative Services-Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the **Business Management and Administrative Services** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE BUSINESS MANAGEMENT AND ADMINISTRATIVE SERVICES PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Business Management Technology	CERTIFICATES	
	Types: BVT, SVT	Types: PVBM, SVBM, PVB, SVB, PVM, SVM
	<i>Approved Areas BUS, VDE, VME, VOE</i>	No Approvals Necessary
Information Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVB, SVB, PVI, SVI, PVM, SVM
	<i>Approved Areas ITT, VTT BUS, VDE, VME, VOE</i>	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Business Management and Administrative Services	CERTIFICATES	
	Types: BVT, SVT	Types: PVBM, SVBM, PVB, SVB, PVM, SVM
	<i>Approved Areas BUS, VDE, VME, VOE</i>	No Approvals Necessary
Note:		
Teacher/Coordinator for 52.0200.80 is required to have a Cooperative Education Endorsement (CEN).		
Business Management and Administrative Services 52.0200.70 may be a part of the sequence and the teacher must hold a Cooperative Education endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE BUSINESS MANAGEMENT AND ADMINISTRATIVE SERVICES PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	BUS Business Education
PVB Provisional Vocational Business	ITT Industrial Technology Education
PVI Provisional Vocational Industrial Technology	VDE Vocational Distributive Education
PVBM Provisional Vocational Business and Marketing	VME Vocational Marketing Education
PVM Provisional Vocational Marketing	VOE Vocational Office Education
SVB Standard Vocational Business	VTT Vocational Trade and Technical Education
SVBM Standard Vocational Business and Marketing	This Space Intentionally Blank
SVI Standard Vocational Industrial Technology	
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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PROGRAM: Construction Technologies

PROGRAM

CIP CODE: 46.0400

DESCRIPTION: *The Construction Technologies program is designed to prepare students for careers in the Construction Industries. The program is comprised of a core curriculum and two options: Construction Technology and Industrial Maintenance. The occupational competencies for both options are aligned with the National Center for Construction Education and Research (NCCER) standards. Construction Technology I includes units of instruction in electrical, masonry, concrete finishing and plumbing. Construction Technology II includes units of instruction in floor systems, wall and ceiling framing, roof framing, site layout, exterior finish and roofing applications. Industrial Maintenance I includes units of instruction in electrical safety, conduit bending, fasteners and anchors, electrical theory one and two, test equipment, national electric code, conductors, reading blueprints and oxyfuel cutting. Industrial Maintenance II includes units of instruction in commercial and industrial wiring, alternating current, motor theory and applications, grounding, boxes and fittings, cabling, conductor terminations and splices, circuit breakers and fuses, contactors and relays, lubrication, bearings, copper and plastic piping and shielded metal arc welding.*

In addition to technical skills, students completing this program will also develop advanced critical thinking, career development, applied academic, life management, business, economic and leadership skills required for construction technologies occupations. The program uses a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience and the Career and Technical Student Organization, SkillsUSA-VICA.

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

**Level I
Grades
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 ***Technological Foundations:*** All students should complete the Level I experience or attain these competencies.

Construction Technologies (continued)

Level II Grades 9-10

The following courses is recommended as part of a Comprehensive CTE CONSTRUCTION TECHNOLOGIES Program:

99.0200.10 **Industrial Technology:** Students should complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies.

Level III Grades 11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated CONSTRUCTION TECHNOLOGIES competencies are addressed in this instructional sequence.

46.0400.10 **Construction Technologies Core Curriculum:** This course includes units of instruction in career planning, communication skills, understanding financial operations, teamwork, basic safety, construction math, hand tools, power tools, reading blueprints and basic rigging.

Two of the following Level III courses (.20 & .30 or .40 & .50) will be included as part of the instructional sequence for this program:

46.0400.20 **Construction Technology I:** This course prepares the individual to apply basic technical knowledge and skills to prepare a site for residential construction.

46.0400.30 **Construction Technology II:** This course prepares the individual to apply basic carpentry skills for residential construction.

-or-

46.0400.40 **Industrial Maintenance I:** This course prepares the individual to apply basic knowledge and skills in electrical theory and applications in industrial settings by performing preventive maintenance tasks or making minor repairs.

46.0400.50 **Industrial Maintenance II:** This course prepares the individual to apply advanced technical knowledge and skills to repair electrical machinery and equipment.

Construction Technologies (continued)

-And program may elect to add-

46.0400.80 ***Construction Technologies-Cooperative***

Education: This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences, directly related to the competencies identified for the ***Construction Technologies*** program.

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TEACHER CERTIFICATION REQUIREMENTS FOR THE CONSTRUCTION TECHNOLOGIES PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Industrial Technology	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
	<i>Approved Areas ITT, VTT</i>	No Approvals Necessary
Business Management Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB
	<i>Approved Areas BUS, VDE, VME, VOE</i>	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Construction Technologies	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
	<i>Approved Areas ITT, VTT</i>	No Approvals Necessary
Note:		
Teacher/Coordinator for 46.0400.80 is required to have a Cooperative Education Endorsement (CEN).		
Construction Technologies 46.0400.70 may be a part of the sequence and the teacher must hold a Cooperative Educative Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE CONSTRUCTION TECHNOLOGIES PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	BUS Business Education
PVB Provisional Vocational Business	ITT Industrial Technology Education
PVBM Provisional Vocational Business and Marketing	VDE Vocational Distributive Education
PVI Provisional Vocational Industrial Technology	VME Vocational Marketing Education
PVM Provisional Vocational Marketing	VOE Vocational Office Education
SVB Standard Vocational Business	VTT Vocational Trade and Technical Education
SVBM Standard Vocational Business and Marketing	This Space Intentionally Blank
SVI Standard Vocational Industrial Technology	
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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PROGRAM: Cosmetology

PROGRAM
CIP CODE: 12.0400

DESCRIPTION: *The **Cosmetology** instructional program prepares students to perform technical services involved with planning, organizing, researching, directing and controlling functions and processes related to the provision of cosmetology services. An integrated approach to teaching and learning is provided as students develop interpersonal relations, career development skills and technical knowledge and skills associated with careers in this field. Students completing this program will be prepared to participate in teams, solve problems, think critically and implement effective solutions. The program is designed and delivered as a coherent sequence of experiences using technical instruction, academic foundations, experiential learning, supervised occupational experience and leadership and personal development through the Career and Technical Student Organization, SkillsUSA-VICA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8 *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10 *The following courses are recommended as part of a Comprehensive CTE COSMETOLOGY Program:*

99.0500.10 **Life Connections:** Students should complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies if Life Connections is not available.

99.0300.30 **Applied Biological Systems-Health:** Students may complete this Level II cluster or attain these competencies if Life Connections is not available.

Cosmetology (continued)

Level III
Grades
11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated COSMETOLOGY competencies are addressed in this instructional sequence.

12.0400.10 ***Fundamentals of Cosmetology:*** This course introduces students to careers in Cosmetology and prepares students to apply academic, employability and technical knowledge and skills related to common industry standards and practices of Cosmetology.

One of the following Level III courses will be included as part of the instructional sequence for this program:

12.0400.20 ***Cosmetology Advanced Applications:*** This course prepares students to apply advanced academic and technical knowledge and skills in a variety of settings within Cosmetology.

12.0400.80 ***Cosmetology-Cooperative Education:*** This course utilizes cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the ***Cosmetology*** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE COSMETOLOGY PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Life Connections	CERTIFICATES	
	Types: BVT, SVT	Types: PVF, SVF, PVH, SVH
	Approved Areas VHO FCS, HEC, VHE, VRO	No Approvals Necessary
Business Management Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB
	Approved Areas BUS, VDE, VME, VOE	No Approvals Necessary
Applied Biological Systems Health	Types: BVT, SVT	Types: PVA, SVA, PVH, SVH
	Approved Areas VHO, AGR, VAG	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Cosmetology	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
	Approved Areas ITT, VTT	No Approvals Necessary
Note:		
Teacher/Coordinator for 12.0400.80 is required to have a Cooperative Education Endorsement (CEN).		
Cosmetology 12.0400.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE COSMETOLOGY PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	AGR Agriculture Education
PVA Provisional Vocational Agriculture	BUS Business Education
PVB Provisional Vocational Business	FCS Family and Consumer Sciences Education
PVBM Provisional Vocational Business and Marketing	HEC Home Economics Education
PVF Provisional Vocational Family Consumer Sciences	ITT Industrial Technology Education
PVH Provisional Vocational Health Occupations	VAG Vocational Agriculture
PVI Provisional Vocational Industrial Technology	VDE Vocational Distributive Education
PVM Provisional Vocational Marketing	VHE Vocational Home Economics
SVA Standard Vocational Agriculture	VHO Vocational Health Occupations
SVB Standard Vocational Business	VME Vocational Marketing Education
SVBM Standard Vocational Business and Marketing	VOE Vocational Office Education
SVF Standard Vocational Family Consumer Sciences	VRO Vocational Related Occupations
SVH Standard Vocational Health Occupations	VTT Vocational Trade and Technical Education
SVI Standard Vocational Industrial Technology	This Space Intentionally Blank
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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PROGRAM: Culinary Arts

PROGRAM

CIP CODE: 12.0500

DESCRIPTION: *The **Culinary Arts** program is designed to prepare students to apply technical knowledge and skills required for food production and service occupations in institutional and commercial food establishments. Students completing this program will possess the technical knowledge and skills required for planning, selecting, storing, purchasing, preparing and serving quality food products. Nutritive values, safety/sanitation precautions, use of commercial equipment, serving techniques, special diets and management of food establishments will also be studied. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic and leadership skills required for entry into culinary arts occupations. The program utilizes a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience and the Career and Technical Student Organizations, FCCLA or SkillsUSA-VICA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8 *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 *Technological Foundations:* All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10 *The following courses are recommended as part of a Comprehensive CTE CULINARY ARTS Program:*

99.0300.40 *Applied Biological Systems–Food Science:* Students should complete this Level II cluster or attain these competencies.

99.0500.10 *Life Connections:* Students may complete this Level II cluster or attain these competencies. This is recommended for students who have a special interest in improving human interaction skills.

Culinary Arts (continued)

99.0400.10 ***Business Management Technology:*** Students **may** complete this Level II cluster or attain these competencies. This is recommended for students who have an interest in proprietorships, management and supervisory occupations.

Level III
Grades
11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated CULINARY ARTS competencies are addressed in this instructional sequence.

12.0500.10 ***Culinary Arts Principles:*** This course prepares students to serve under the supervision of food service professionals as kitchen support staff and commercial food preparation workers. It includes instruction in kitchen equipment, organization and operations, sanitation, quality control, quantity food preparation and cooking skills.

One of the following Level III courses will be included as part of the instructional sequence for this program:

12.0500.20 ***Culinary Arts Applications:*** This course prepares students with advanced applications in kitchen equipment, organization and operations, sanitation, quality control, quantity food preparation and cooking skills. Students may choose to become certified through the careers in Culinary Arts Program (C-CAP), ACCESS American Culinary Federation (ACF) Certification program and the National Restaurant Association Pro Start Certification Program.

12.0500.80 ***Culinary Arts-Cooperative Education:*** This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the ***Culinary Arts*** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE CULINARY ARTS PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Applied Biological Systems - Food Science	CERTIFICATES	
	Types: BVT, SVT	Types: PVF, SVF, PVH, SVH
	Approved Areas VHO, FCS, HEC, VHE, VRO	No Approvals Necessary
Life Connections	Types: BVT, SVT	Types: PVF, SVF, PVH, SVH
	Approved Areas VHO FCS, HEC, VHE, VRO	No Approvals Necessary
Business Management Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVB, SVB, PVM, SVM
	Approved Areas BUS, VDE, VME, VOE	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Culinary Arts	CERTIFICATES	
	Types: BVT, SVT	Types: PVF, SVF, PVI, SVI
	Approved Areas ITT, VTT FCS, HEC, VHE, VRO	No Approvals Necessary
Note:		
Teacher/Coordinator for 12.0500.80 is required to have a Cooperative Education Endorsement (CEN).		
Culinary Arts 12.0500.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE CULINARY ARTS PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	BUS Business Education
PVB Provisional Vocational Business	FCS Family and Consumer Sciences Education
PVBM Provisional Vocational Business and Marketing	HEC Home Economics Education
PVF Provisional Vocational Family Consumer Sciences	ITT Industrial Technology Education
PVH Provisional Vocational Health Occupations	VDE Vocational Distributive Education
PVI Provisional Vocational Industrial Technology	VHE Vocational Home Economics
PVM Provisional Vocational Marketing	VHO Vocational Health Occupations
SVB Standard Vocational Business	VME Vocational Marketing Education
SVBM Standard Vocational Business and Marketing	VOE Vocational Office Education
SVF Standard Vocational Family Consumer Sciences	VRO Vocational Related Occupations
SVH Standard Vocational Health Occupations	VTT Vocational Trade and Technical Education
SVI Standard Vocational Industrial Technology	This Space Intentionally Blank
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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PROGRAM: Drafting/Design Technology

PROGRAM

CIP CODE: 15.1300

DESCRIPTION: *The **Drafting/Design Technology** program is designed to prepare students to plan scale interpretations of engineering, design and architectural drafting applications in industry. Instruction includes the use of precision drawing instruments, computer assisted design and drafting (CADD), sketching and illustration and specification interpretation. In addition to technical skills, the student completing this program will possess advanced critical thinking, employability, applied academic, life management, business economic and leadership skills required for drafting occupations. The program utilizes a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience and the Career and Technical Student Organization, SkillsUSA-VICA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8 *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10 *The following courses are recommended as part of a Comprehensive CTE DRAFTING/DESIGN TECHNOLOGY Program:*

99.0100.10 **Information Technology:** Students should complete this Level II cluster or attain these competencies.

99.0200.10 **Industrial Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended to enhance students' knowledge of construction practices and materials.

Drafting/Design Technology (continued)

Level III
Grades
11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated DRAFTING/DESIGN TECHNOLOGY competencies are addressed in this instructional sequence.

15.1300.10 ***Drafting/Design Technology Concepts:*** This instructional course prepares students to apply technical knowledge and skills to plan and prepare scale interpretations of engineering, design and architectural projects. It includes instruction in creating layouts and designs, blueprints and renderings and in the use of computer-assisted design programs. In addition to knowledge of drafting technologies, students will have the opportunity to place special emphasis on more specific services and/or industries in which they have an interest.

One of the following Level III courses will be included as part of the instructional sequence for this program:

15.1300.20 ***Drafting/Design Technology Advanced Applications:*** This course prepares students for advanced technical knowledge and skills using a variety of drafting/design technology techniques and equipment.

15.1300.80 ***Drafting/Design Technology -Cooperative Education:*** This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the ***Drafting/Design Technology*** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE DRAFTING/DESIGN TECHNOLOGY PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Information Technology	CERTIFICATES	
	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB, PVI, SVI
	Approved Areas ITT, VTT, BUS, VDE, VME, VOE	No Approvals Necessary
Industrial Technology	Types: BVT, SVT	Types: PVI, SVI
	Approved Areas ITT, VTT, BUS, VDE, VME, VOE	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Drafting/Design Technology	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
	Approved Areas ITT, VTT	No Approvals Necessary
Note:		
Teacher/Coordinator for 15.1300.80 is required to have a Cooperative Education Endorsement (CEN).		
Drafting/Design Technology 15.1300.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE DRAFTING/DESIGN TECHNOLOGY PROGRAM			
CERTIFICATE TYPES:	APPROVED AREAS:		
BVT Basic Vocational Education Teacher	BUS Business Education		
PVB Provisional Vocational Business	ITT Industrial Technology Education		
PVBM Provisional Vocational Business and Marketing	VDE Vocational Distributive Education		
PVI Provisional Vocational Industrial Technology	VME Vocational Marketing Education		
PVM Provisional Vocational Marketing	VOE Vocational Office Education		
SVB Standard Vocational Business	VTT Vocational Trade and Technical Education		
SVBM Standard Vocational Business and Marketing	This Space Intentionally Blank		
SVI Standard Vocational Industrial Technology			
SVM Standard Vocational Marketing			
SVT Standard Vocational Education Teacher			
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PROGRAM: Early Childhood Professions

**PROGRAM
CIP CODE:** 13.1200

DESCRIPTION: *The **Early Childhood Professions** program is designed to prepare students for employment in residential, institutional and early childhood settings. The program includes instruction in child growth and development, child health, nutrition, safety, planning and supervision of developmentally appropriate play and learning activities. Child guidance, family relationships, applicable legal and administrative requirements are addressed as well Preparation for the development and management of effective child care programs and facilities is included. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic and leadership skills required for entry into early childhood professions occupations. The program utilizes a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience and the Career and Technical Student Organization, FCCLA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

**Level I
Grades
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

**Level II
Grades
9-10** *The following courses are recommended as part of a Comprehensive CTE EARLY CHILDHOOD PROFESSIONS Program:*

99.0500.10 **Life Connections:** Students should complete this Level II cluster or attain these competencies. This is recommended for students who have a special interest in improving human interaction skills.

99.0300.40 **Applied Biological Systems – Food Science:** Students may complete this Level II cluster or attain these competencies.

Early Childhood Professions (continued)

99.0400.10 ***Business Management Technology:*** Students ***may*** complete this Level II cluster or attain these competencies. This is recommended for students who have an interest in owning or managing a day care center.

Level III
Grades
11-12

The following describes the recommended sequence of courses organized on the basis of industry-recognized skills necessary for initial employment or continued related education. All the Level III state-designated EARLY CHILDHOOD PROFESSIONS competencies are addressed in this instructional sequence.

13.1200.10 ***Early Childhood Professions Fundamentals:*** This course prepares occupational students to understand the physical, mental, emotional and social growth and development of children. It is recommended that a portion of class time be spent observing young children.

One of the following Level III courses will be included as part of the instructional sequence for this program:

13.1200.20 ***Early Childhood Professions Applications:*** This course prepares students for occupations in child care and guidance in both the public and private sector. At least 50% of student time should be spent with children below grade three. Upon completion of Child Development Associate (CDA) modules students may receive CDA credentials from the National Association for the Education of Young Children (NAEYC).

13.1200.80 ***Early Childhood Professions-Cooperative Education:*** This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies for the ***Early Childhood Professions*** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE EDUCATION PROFESSIONS PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Life Connections	CERTIFICATES	
	Types: BVT, SVT	Types: PVF, SVF, PVH, SVH
	<i>Approved Areas</i> VHO FCS, HEC, VHE, VRO	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Education Professions	CERTIFICATES	
	Types: BSC, SSC, BEC, KEC, SEC	
	<i>Additional Requirements:</i> <i>Minimum three years teaching experience.</i> <i>Education Professions Curriculum Training as approved by ADE.</i>	No Approvals Necessary
Note:		
Teacher/Coordinator for 13.1500.80 is required to have a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE EARLY CHILDHOOD PROFESSIONS PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	BUS Business Education
PVB Provisional Vocational Business	FCS Family and Consumer Sciences Education
PVBM Provisional Vocational Business and Marketing	HEC Home Economics Education
PVF Provisional Vocational Family Consumer Sciences	VDE Vocational Distributive Education
PVH Provisional Vocational Health Occupations	VHE Vocational Home Economics
PVM Provisional Vocational Marketing	VHO Vocational Health Occupations
SVB Standard Vocational Business	VME Vocational Marketing Education
SVBM Standard Vocational Business and Marketing	VOE Vocational Office Education
SVF Standard Vocational Family Consumer Sciences	VRO Vocational Related Occupations
SVH Standard Vocational Health Occupations	This Space Intentionally Blank
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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PROGRAM: Education Professions

**PROGRAM
CIP CODE:** 13.1500

DESCRIPTION: *The **Education Professions** program is designed to prepare students for employment or post secondary opportunities in the education field. The program provides instruction in education career choices, education structure and systems, theory, pedagogy, developmental stages, learning styles and methodology. The program also provides interactive experiences with students at different age levels, in a variety of content areas in educational environments. Education Professions is designed to articulate with the Introduction to Education courses at the community college and para professional preparation programs. In addition to technical skills, students completing this program will develop advanced critical thinking skills, enhanced academic skills, develop civic responsibility, understand education as a consumer, develop employability and leadership skills. The program utilizes a delivery system made up of four integral parts: formal/technical instruction, experiential/service learning, supervised work-based learning and the student organization, Future Educators of America (FEA).*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

**Level I
Grades
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Technological Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

**Level II
Grades
9-10** *The following course is recommended as part of a Comprehensive CTE EDUCATION PROFESSIONS Program:*

99.0500.10 **Life Connections:** Students should complete this Level II cluster or attain these competencies.

Education Professions (continued)

Level III
Grades
11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated EDUCATION PROFESSIONS competencies are addressed in this instructional program.

13.1500.10 ***Education Professions Fundamentals:*** This course provides students with instruction in education career choices, education structure and systems, legal and ethical responsibility of educators. It provides instruction in developmental stages of children, education theory, pedagogy and methodology. It is recommended that observation and interactive field experience be a significant part of this course.

One of the following Level III courses will be included as part of the instructional sequence for this program:

13.1500.20 ***Education Professions Applications:*** This course prepares students to work in an educational environment. The course should expound on learning styles, interactions with students, use of equipment and resources, methodology both in preparation and presentation in the classroom as a workplace. Extensive field experience is a crucial component of this course.

13.1500.80 ***Education Professions-Cooperative Education:*** This course utilizes a cooperative education methodology to combine school based learning and supervised work-based learning experiences directly related to the competencies for the ***Education Professions*** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE EDUCATION PROFESSIONS PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Life Connections	CERTIFICATES	
	Types: BVT, SVT	Types: PVF, SVF, PVH, SVH
	<i>Approved Areas</i> VHO FCS, HEC, VHE, VRO	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Education Professions	CERTIFICATES	
	Types: BSC, SSC, BEC, KEC, SEC	
	<i>Additional Requirements:</i> <i>Minimum three years teaching experience.</i> <i>Education Professions Curriculum Training as approved by ADE.</i>	No Approvals Necessary
Note:		
Teacher/Coordinator for 13.1500.80 is required to have a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATION ABBREVIATIONS FOR THE EDUCATION PROFESSIONS PROGRAM		
CERTIFICATE TYPES:	APPROVED AREAS:	
BSC Basic Secondary 7-12	FCS Family and Consumer Sciences Education	
SSC Standary Secondary 7-12	VHE Vocational Home Economics	
BEC Basic Elementary	VHO Vocational Health Occupations	
KEC Kindergarten-Elementary	VRO Vocational Related Occupations	
SEC Standard Elementary K-8	This Space Intentionally Blank	
BVT Basic Vocational Education Teacher		
PVF Provisional Vocational Family Consumer Sciences		
PVH Provisional Vocational Health Occupations		
SVF Standard Vocational Family Consumer Sciences		
SVH Standard Vocational Health Occupations		
SVT Standard Vocational Education Teacher		
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PROGRAM: Electrical and Power Transmission Technology

PROGRAM

CIP CODE: 46.0300

DESCRIPTION: *The **Electrical and Power Transmission Technology** program is designed to prepare students to install, operate, maintain, troubleshoot and repair residential, commercial and industrial electrical systems. Fundamentals of the electrical trade include the information and basic skills necessary to install residential, commercial and industrial electrical systems from blueprints. This program also contains information relating to current technology used in electrical systems. In addition to technical skills, students completing this program will also develop skills in advanced critical thinking, career development, applied academic, life management, business economic and leadership skills required for electrical trades occupations. The program uses a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience and the Career and Technical organization, SkillsUSA-VICA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8 *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10 *The following courses are recommended as part of a Comprehensive CTE ELECTRICAL AND POWER TRANSMISSION TECHNOLOGY Program:*

99.0200.10 **Industrial Technology:** Students should complete this Level II cluster or attain these competencies.

99.0100.10 **Information Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended to enhance the students' knowledge of electronics in communication industries.

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who wish to emphasize the entrepreneurial aspects of this industry.

Electrical and Power Transmission Technology (continued)

Level III
Grades
11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated ELECTRICAL AND POWER TRANSMISSION TECHNOLOGY competencies are addressed in this instructional program.

46.0300.10 ***Electrical Installation:*** This course prepares students to apply technical knowledge and skills to install, operate, maintain and repair residential, commercial and industrial electrical systems and the power lines that transmit electricity from its source of generation to its place of consumption.

One of the following Level III courses will be included as part of the instructional sequence for this program:

46.0300.20 ***Electrical and Power Transmission Technology Advanced Applications:*** This course prepares students for application of advanced technical knowledge and skills using a variety of Electrical and Power Transmission Technology techniques and equipment.

-And program may elect to add-

46.0300.80 ***Electrical and Power Transmission Technology-Cooperative Education:*** This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the ***Electrical and Power Transmission Technology*** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE ELECTRICAL AND POWER TRANSMISSION TECHNOLOGY PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
Industrial Technology	<i>Approved Areas ITT, VTT</i>	No Approvals Necessary
Business Management Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB
	<i>Approved Areas BUS, VDE, VME, VOE</i>	No Approvals Necessary
Information Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB, PVI, SVI
	<i>Approved Areas ITT, VTT, BUS, VDE, VME, VOE</i>	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
Electrical and Power Transmission Technology	<i>Approved Areas ITT, VTT</i>	No Approvals Necessary
Note:		
Teacher/Coordinator for 46.0300.80 is required to have a Cooperative Education Endorsement (CEN).		
Electrical and Power Transmission Technology 46.0300.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE ELECTRICAL AND POWER TRANSMISSION TECHNOLOGY PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	BUS Business Education
PVB Provisional Vocational Business	ITT Industrial Technology Education
PVBM Provisional Vocational Business and Marketing	VDE Vocational Distributive Education
PVI Provisional Vocational Industrial Technology	VME Vocational Marketing Education
PVM Provisional Vocational Marketing	VOE Vocational Office Education
SVB Standard Vocational Business	VTT Vocational Trade and Technical Education
SVBM Standard Vocational Business and Marketing	This Space Intentionally Blank
SVI Standard Vocational Industrial Technology	
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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PROGRAM: Electronics Technology

PROGRAM

CIP CODE: 15.0300

DESCRIPTION: *The **Electronics Technology** program is designed to prepare students to apply basic engineering principles and technical skills in support of electrical, electronics and communication engineers. Includes instruction in electrical circuitry, prototype development and testing, systems analysis and testing, systems maintenance, instrument calibration and report preparation. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic and leadership skills required for electronics technology occupations. The program utilizes a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience and the Career and Technical Student Organization, SkillsUSA-VICA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8 *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10 *The following courses are recommended as part of a Comprehensive CTE ELECTRONICS TECHNOLOGY Program:*

99.0200.10 **Industrial Technology:** Students should complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management Technology:** Students may complete with Level II cluster or attain these competencies. This is recommended for students who have a special interest in proprietorships, management and supervisory occupations in the electronics industry.

Electronics Technology (continued)

- 99.0100.10 **Information Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who have an interest working in the computer manufacturing or computer repair industries.

Level III Grades 11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated ELECTRONICS TECHNOLOGY competencies are addressed in this instructional sequence.

- 15.0300.10 **Electronics Technology Core Curriculum:** Students will learn basic safety principles and practices used in electronic manufacturing industries and/or repairing electronic equipment. Students will learn how to use basic hand tools, test equipment and troubleshooting techniques. Other units of instruction include basic math through trigonometry, reading and interpreting schematic diagrams and technical drawings, soldering-desoldering techniques and other basic assembly skills.
- 15.0300.20 **Basic Electricity Principles and Applications:** This course includes units of instruction in basic concepts, electrical quantities and units, basic circuits, laws and measurements, circuit components, multiple-load circuits, complex-circuit analysis, magnetism, alternating current and voltage, power in AC circuits, capacitance, inductance, transformers, RCL circuits, electric motors, test equipment and residential wiring concepts.
- 15.0300.30 **Basic Electronics Principles and Applications:** This course includes units of instruction in semiconductors, diodes, power supplies, transistors, small-signal amplifiers, large-signal amplifiers, operational amplifiers, oscillators, communications theory, integrated circuits, silicon-controlled rectifiers, regulated power supplies and digital signal processing.

Electronics Technology (continued)

-And program may elect to add:

- 15.0300.40 ***Digital Electronics Principles and Applications:***
This course includes units of instruction in digital circuits, binary numbers, logic gates, IC Specifications and Simple Interfacing, encoding, decoding and seven-segment displays, flip-flops, counters, shift registers, arithmetic circuits, memories, digital systems and analog to digital systems and analog to digital conversion.
- 15.0300.50 ***Communication Electronics Principles and Applications:*** This course includes units of instruction in amplitude and frequency modulation/demodulation theory, radio transmitters and receivers, multiplexing, antennas and transmission lines, microwave theory, satellite communications, data modems, internet, fiber-optics, television and telephone systems.
- 15.0300.80 ***Electronics Technology-Cooperative Education:***
This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the ***Electronics Technology*** program.

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TEACHER CERTIFICATION REQUIREMENTS FOR THE ELECTRONICS TECHNOLOGY PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Industrial Technology	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
	Approved Areas ITT, VTT	No Approvals Necessary
Business Management Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB
	Approved Areas BUS, VDE, VME, VOE	No Approvals Necessary
Information Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB, PVI, SVI
	Approved Areas ITT, VTT, BUS, VDE, VME, VOE	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Electronics Technology	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
	Approved Areas ITT, VTT	No Approvals Necessary
Note:		
Teacher/Coordinator for 15.0300.80 is required to have a Cooperative Education Endorsement (CEN).		
Electronics Technology 15.0300.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE ELECTRONICS TECHNOLOGY PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	BUS Business Education
PVB Provisional Vocational Business	ITT Industrial Technology Education
PVBM Provisional Vocational Business and Marketing	VDE Vocational Distributive Education
PVI Provisional Vocational Industrial Technology	VME Vocational Marketing Education
PVM Provisional Vocational Marketing	VOE Vocational Office Education
SVB Standard Vocational Business	VTT Vocational Trade and Technical Education
SVBM Standard Vocational Business and Marketing	This Space Intentionally Blank
SVI Standard Vocational Industrial Technology	
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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PROGRAM: Fashion Design and Merchandising

PROGRAM

CIP CODE: 52.1900

DESCRIPTION: *The **Fashion Design and Merchandising** program is designed to prepare students for employment in various fashion design, production, apparel sales, customer service and first-line supervisory positions in apparel manufacturing, wholesale and retail establishments. A student completing this program will possess the technical knowledge and skills associated with fashion design/production and apparel selection, purchase, sales and promotion. In addition to technical skills, students completing this program will also develop advanced critical thinking, career development, applied academic, life management, business economic and leadership skills required for entry into fashion design and merchandising occupations. The program utilizes a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience and the Career and Technical Student Organizations, FCCLA or DECA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8 *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10 *The following courses are recommended as part of a Comprehensive CTE FASHION DESIGN AND MERCHANDISING Program:*

99.0500.10 **Life Connections:** Students should complete this Level II cluster or attain these competencies. This is recommended for students who have a special interest in human interaction skills.

99.0100.10 **Information Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who want to develop skills in manual and computer-assisted design and communications.

Fashion Design and Merchandising (continued)

99.0400.10 ***Business Management Technology:*** Students **may** complete this Level II cluster or attain these competencies. This is recommended for students who are interested in business operations, management and finance.

Level III
Grades
11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated FASHION DESIGN AND MERCHANDISING competencies are addressed in this instructional sequence.

52.1900.10 ***Fashion Design and Merchandising Fundamentals:***
This course introduces students to the technical knowledge and skills associated with fashion design, production, selection, marketing principles, display, purchase, sales and promotion.

One of the following Level III courses will be included as part of the instructional sequence for this program:

52.1900.20 ***Fashion Design and Merchandising Applications:***
This course is designed for students to apply advanced occupational skills in fashion design, production, selection, marketing principles, display, purchase, sales and promotion.

52.1900.80 ***Fashion Design and Merchandising-Cooperative Education:*** This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the ***Fashion Design and Merchandising*** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE FASHION DESIGN AND MERCHANDISING PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
	CERTIFICATES	
	Types: BVT, SVT	Types: PVF, SVF, PVH, SVH
Life Connections	<i>Approved Areas</i> VHO FCS, HEC, VHE, VRO	No Approvals Necessary
Information Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVB, SVB, PVM, SVM, PVI, SVI
	<i>Approved Areas</i> ITT, VTT BUS, VDE, VME, VOE	No Approvals Necessary
Business Management Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVB, SVB, PVM, SVM
	<i>Approved Areas</i> BUS, VDE, VME, VOE	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
	CERTIFICATES	
	Types: BVT, SVT	Types: PVF, SVF, PVBM, SVBM, PVB, SVB, PVM, SVM
Fashion Design and Merchandising	<i>Approved Areas</i> BUS, VDE, VME, VOE, FCS, HEC, VHE, VRO	No Approvals Necessary
Note:		
Teacher/Coordinator for 52.1900.80 is required to have a Cooperative Education Endorsement (CEN).		
Fashion Design Merchandising 52.1900.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE FASHION DESIGN AND MERCHANDISING PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	BUS Business Education
PVB Provisional Vocational Business	FCS Family and Consumer Sciences Education
PVBM Provisional Vocational Business and Marketing	HEC Home Economics Education
PVF Provisional Vocational Family Consumer Sciences	ITT Industrial Technology Education
PVH Provisional Vocational Health Occupations	VDE Vocational Distributive Education
PVI Provisional Vocational Industrial Technology	VHE Vocational Home Economics
PVM Provisional Vocational Marketing	VHO Vocational Health Occupations
SVB Standard Vocational Business	VME Vocational Marketing Education
SVBM Standard Vocational Business and Marketing	VOE Vocational Office Education
SVF Standard Vocational Family Consumer Sciences	VRO Vocational Related Occupations
SVH Standard Vocational Health Occupations	VTT Vocational Trade and Technical Education
SVI Standard Vocational Industrial Technology	This Space Intentionally Blank
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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PROGRAM: Financial Services

PROGRAM:
CIP CODE: 52.0800

DESCRIPTION: *The **Financial Services** instructional program is designed to prepare students with skills and knowledge for employment and continuing education in business and personal finance. Instruction includes financial investment and planning, insurance, banking and related services. Students, who successfully complete this program of instruction, will be adequately prepared to understand personal business-economic issues and solve problems, enter the labor market with skills which are transferable across financial institutions. Instruction is designed, planned and delivered as a coherent sequence utilizing formal, technical instruction, experiential learning, supervised cooperative work experience, Cooperative Office Education (COE) and leadership development through the Career and Technical Student Organizations, Future Business Leaders of America (FBLA) and DECA. Students completing this program will possess critical thinking, career development, applied academics, life management, business, economic and leadership skills required for advanced training and employment in financial services related occupations.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8 *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10 *The following course is recommended as part of a Comprehensive CTE FINANCIAL SERVICES Program:*

99.0400.10 **Business Management Technology:** Students should complete this Level II cluster or attain these competencies.

99.0500.10 **Life Connections:** If Business Management Technology is not available, students may complete this Level II cluster or attain these competencies.

Financial Services (continued)

Level III
Grades
11–12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated FINANCIAL SERVICES competencies are addressed in this instructional sequence.

52.0800.10 ***Financial Services Technology:*** This course prepares students to develop an understanding of economic systems and skills to perform business related financial or banking services.

One of the following Level III courses will be included as part of the instructional sequence for this program:

52.0800.20 ***Financial Services Systems:*** The outcomes of this course are integrated into learning experiences allowing students to demonstrate the full range of Financial Services competencies through projects/simulations.

52.0800.80 ***Financial Services-Cooperative Education:*** This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the ***Financial Services*** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE FINANCIAL SERVICES PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Business Management Technology	CERTIFICATES	
	Types: BVT, SVT	Types: PVBM, SVBM, PVB, SVB, PVM, SVM
	<i>Approved Areas BUS, VDE, VME, VOE</i>	No Approvals Necessary
Life Connections	Types: BVT, SVT	Types: PVF, SVF, PVH, SVH
	<i>Approved Areas VHO FCS, HEC, VHE, VRO</i>	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Financial Services	CERTIFICATES	
	Types: BVT, SVT	Types: PVBM, SVBM, PVB, SVB, PVM, SVM
	<i>Approved Areas BUS, VDE, VME, VOE</i>	No Approvals Necessary
Note:		
Teacher/Coordinator for 52.0800.80 is required to have a Cooperative Education Endorsement (CEN).		
Financial Services 52.0800.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE FINANCIAL SERVICES PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	BUS Business Education
PVB Provisional Vocational Business	FCS Family and Consumer Sciences Education
PVBM Provisional Vocational Business and Marketing	HEC Home Economics Education
PVF Provisional Vocational Family Consumer Sciences	VDE Vocational Distributive Education
PVH Provisional Vocational Health Occupations	VHE Vocational Home Economics
PVM Provisional Vocational Marketing	VHO Vocational Health Occupations
SVB Standard Vocational Business	VME Vocational Marketing Education
SVBM Standard Vocational Business and Marketing	VOE Vocational Office Education
SVF Standard Vocational Family Consumer Sciences	VRO Vocational Related Occupations
SVF Standard Vocational Family Consumer Sciences	This Space Intentionally Blank
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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PROGRAM: Fire Science

PROGRAM
CIP CODE: 43.0200

DESCRIPTION: *The Fire Science program prepares students to perform technical services involved with planning, organizing, researching, directing and controlling functions and processes related to the provision of fire science services. An integrated approach to teaching and learning is provided as students develop interpersonal relations, career development skills and technical knowledge and skills associated with careers in this field. Students completing this program will be prepared to participate in teams, solve problems, think critically and implement effective solutions. The program is designed and delivered as a coherent sequence of experiences using technical instruction, academic foundations, experiential learning, supervised occupational experience and leadership and personal development through the Career and Technical Student Organization, SkillsUSA-VICA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8 *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10 *The following courses are recommended as part of a Comprehensive CTE FIRE SCIENCE Program:*

99.0200.10 **Industrial Technology:** Students should complete this Level II cluster or attain these competencies.

99.0500.10 **Life Connections:** Students may complete this Level II cluster or attain these competencies if Industrial Technology is not available.

99.0300.20 **Applied Biological Systems-Agriculture:** Students may complete this Level II cluster or attain these competencies if Industrial Technology is not available.

Fire Science (continued)

Level III
Grades
11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated FIRE SCIENCE competencies are addressed in this instructional sequence.

43.0200.10 ***Fundamentals of Fire Science:*** This course introduces students to careers in Fire Science and prepares students to apply academic, employability and technical knowledge and skills related to common industry standards and practices of Fire Science.

One of the following Level III courses will be included as part of the instructional sequence for this program:

43.0200.20 ***Fire Science Advanced Applications:*** This course prepares students to apply advanced academic and technical knowledge and skills in a variety of settings within Fire Science.

43.0200.80 ***Fire Science-Cooperative Education:*** This course utilizes cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the ***Fire Science*** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE FIRE SCIENCE PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Industrial Technology	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
	Approved Areas ITT, VTT	No Approvals Necessary
Life Connections	Types: BVT, SVT	Types: PVF, SVF, PVH, SVH
	Approved Areas VHO, FCS, HEC, VHE, VRO	No Approvals Necessary
Applied Biological Systems - Agriculture	Types: BVT, SVT	Types: PVA, SVA
	Approved Areas AGR, VAG	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Fire Science	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
	Approved Areas ITT, VTT	No Approvals Necessary
Note:		
Teacher/Coordinator for 43.0200.80 is required to have a Cooperative Education Endorsement (CEN).		
Fire Science 43.0200.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE FIRE SCIENCE PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	AGR Agriculture Education
PVA Provisional Vocational Agriculture	FCS Family and Consumer Sciences Education
PVF Provisional Vocational Family Consumer Sciences	HEC Home Economics Education
PVH Provisional Vocational Health Occupations	ITT Industrial Technology Education
PVI Provisional Vocational Industrial Technology	VAG Vocational Agriculture
SVA Standard Vocational Agriculture	VHE Vocational Home Economics
SVF Standard Vocational Family Consumer Sciences	VHO Vocational Health Occupations
SVH Standard Vocational Health Occupations	VRO Vocational Related Occupations
SVI Standard Vocational Industrial Technology	VTT Vocational Trade and Technical Education
SVT Standard Vocational Education Teacher	
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PROGRAM: Graphic Communications

PROGRAM
CIP CODE: 10.0300

DESCRIPTION: *The **Graphic Communications** program is designed to prepare the individual to apply technical knowledge and skills in the manufacture and distribution or transmission of graphic communications products. The program includes instruction in the prepress, press and post-press phases of production operations and processes such as offset lithography, flexography, gravure, letterpress, screen-printing, foil stamping, digital imaging and other reproductive methods. The program consists of a core curriculum and three options: Graphic Arts, Commercial Art and Commercial Photography. In addition to technical skills, students completing this program will also develop advanced critical thinking, career development, applied academic, life management, business, economic and leadership skills required for graphic communications occupations. The program utilizes a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience and the Career and Technical Student Organization, SkillsUSA-VICA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7- 8 *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10 *The following courses are recommended as part of a Comprehensive CTE GRAPHIC COMMUNICATIONS Program:*

99.0100.10 **Information Technology:** Students should complete this Level II cluster or attain these competencies. This is recommended for students who wish to emphasize computer systems in such areas as desktop publishing, printing and graphics occupations.

99.0200.10 **Industrial Technology:** Students may complete this Level II cluster or attain these competencies.

Graphic Communications (continued)

Level III
Grades
11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated GRAPHIC COMMUNICATIONS competencies are addressed in this instructional sequence.

10.0300.10 **Graphic Communications Core Curriculum:** This course includes units of instruction in all aspects of the industry, career development, applied math, safety, legal issues, customer service, basic computer skills, basic design skills, color management and preparing a portfolio for Graphic Communications occupations.

Two of the following Level III courses (.20 & 30 or .40 & .50 or .60 & .70) will be included as part of the instructional sequence for this program:

10.0300.20 **Graphic Arts I:** This course prepares the individual to apply basic artistic and computer techniques to the interpretation of technical and commercial concepts. Includes instruction in computer assisted art and design, printmaking, concepts sketching, technical drawing, color theory, imaging, studio technique, still life modeling, communication skills and commercial art business operations.

10.0300.30 **Graphic Arts II:** This course prepares the individual to apply advanced technical knowledge and skills to the layout, design and typographic arrangements of printed and/or electronic graphic and textual products. Includes instruction in printing and lithographic equipment and operations, computer hardware and software, digital imaging; print preparation, desktop publishing and web page design.

-or-

10.0300.40 **Commercial Art I:** This course includes units of instruction in applied visual arts that prepares the individual to use basic artistic techniques to effectively communicate ideas and information to business and customer audiences via illustrations and other forms of digital or printed media.

Graphic Communications (continued)

10.0300.50 **Commercial Art II:** This course prepares the individual to apply advanced knowledge and skills to prepare customer documents. The course includes units of instruction in concept design, layout, paste-up and techniques such as engraving, etching, silkscreen, lithography, offset, drawing and cartooning, painting, collage and compute graphics.

-or-

10.0300.60 **Photo Imaging I:** This course includes units of instruction in applied visual arts that prepares the individual to use basic artistic techniques to effectively communicate ideas and information to business and customer audiences and recording events and people, via digital, film, still and video photography.

10.0300.90 **Photo Imaging II:** This course prepares the individual to apply advanced knowledge and skills to prepare customer documents. The course includes units of instruction in specialized camera and equipment operation and maintenance, applications to commercial and industrial needs and photography business operations.

-And program may elect to add-

10.0300.80 **Graphic Communications-Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the **Graphic Communications** program.

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TEACHER CERTIFICATION REQUIREMENTS FOR THE GRAPHIC COMMUNICATIONS PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Information Technology	CERTIFICATES	
	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB, PVI, SVI
	Approved Areas ITT, VTT, BUS, VDE, VME, VOE	No Approvals Necessary
Industrial Technology	Types: BVT, SVT	Types: PVI, SVI
	Approved Areas ITT, VTT	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Graphic Communications	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
	Approved Areas ITT, VTT	No Approvals Necessary
Note:		
Teacher/Coordinator for 10.0300.80 is required to have a Cooperative Education Endorsement (CEN).		
Graphic Communications 10.0300.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE GRAPHIC COMMUNICATIONS PROGRAM			
CERTIFICATE TYPES:	APPROVED AREAS:		
BVT Basic Vocational Education Teacher	BUS Business Education		
PVB Provisional Vocational Business	ITT Industrial Technology Education		
PVBM Provisional Vocational Business and Marketing	VDE Vocational Distributive Education		
PVI Provisional Vocational Industrial Technology	VME Vocational Marketing Education		
PVM Provisional Vocational Marketing	VOE Vocational Office Education		
SVB Standard Vocational Business	VTT Vocational Trade and Technical Education		
SVBM Standard Vocational Business and Marketing	This Space Intentionally Blank		
SVI Standard Vocational Industrial Technology			
SVM Standard Vocational Marketing			
SVT Standard Vocational Education Teacher			
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PROGRAM: Heating, Ventilation and Air Conditioning

PROGRAM

CIP CODE: 47.0200

DESCRIPTION: *The **Heating, Ventilation and Air Conditioning** program is designed to prepare students for employment installing, repairing and maintaining the operating condition of heating, air conditioning and refrigeration systems in residential and light commercial applications. It includes instruction in the scientific principles of heat transfer, pneumatics, hydraulics, control systems, installation from blueprints and environmental regulations regarding coolants. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic and leadership skills required for heating, ventilation and air conditioning occupations. The program utilizes a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience and the Career and Technical Student Organization, SkillsUSA-VICA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8 *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10 *The following courses are recommended as part of a Comprehensive CTE HEATING, VENTILATION AND AIR CONDITIONING Program:*

99.0200.10 **Industrial Technology:** Students should complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies.

99.0100.10 **Information Technology:** Students may complete this Level II cluster or attain these competencies.

Heating, Ventilation and Air Conditioning (continued)

Level III
Grades
11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated HEATING, VENTILATION AND AIR CONDITIONING competencies are addressed in this instructional sequence.

47.0200.10 ***Heating, Ventilation and Air Conditioning Fundamentals:*** This course prepares students to apply basic technical knowledge and skills to repair, install, service and maintain the operating condition of heating, air conditioning and refrigeration systems. Instruction includes diagnostic techniques, the use of testing equipment, the principles of mechanics, electricity and electronics as they relate to the repair of heating, air conditioning and refrigeration systems.

One of the following Level III courses will be included as part of the instructional sequence for this program:

47.0200.20 ***Heating, Ventilation and Air Conditioning Advanced Applications:*** This course prepares students for advanced technical knowledge and skills pertaining to the application of the principles of: mechanics; electricity/electronics and fuels as related.

47.0200.80 ***Heating, Ventilation and Air Conditioning-Cooperative Education:*** This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the ***Heating, Ventilation and Air Conditioning*** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE HEATING, VENTILATION AND AIR CONDITIONING PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
Industrial Technology	<i>Approved Areas ITT, VTT</i>	No Approvals Necessary
Business Management Technology	<i>Approved Areas BUS, VDE, VME, VOE</i>	No Approvals Necessary
Information Technology	<i>Approved Areas ITT, VTT, BUS, VDE, VME, VOE</i>	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
Heating, Ventilation and Air Conditioning	<i>Approved Areas ITT, VTT</i>	No Approvals Necessary
Note:		
Teacher/Coordinator for 47.0200.80 is required to have a Cooperative Education Endorsement (CEN).		
Heating, Ventilation and Air Conditioning 47.0200.70 may be a part of the sequence and the teacher must hold a Cooperative Education endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE HEATING, VENTILATION AND AIR CONDITIONING PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	BUS Business Education
PVB Provisional Vocational Business	ITT Industrial Technology Education
PVBM Provisional Vocational Business and Marketing	VDE Vocational Distributive Education
PVI Provisional Vocational Industrial Technology	VME Vocational Marketing Education
PVM Provisional Vocational Marketing	VOE Vocational Office Education
SVB Standard Vocational Business	VTT Vocational Trade and Technical Education
SVBM Standard Vocational Business and Marketing	This Space Intentionally Blank
SVI Standard Vocational Industrial Technology	
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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PROGRAM: Heavy Equipment Operation

PROGRAM

CIP CODE: 49.0200

DESCRIPTION: *The **Heavy Equipment Operation** program is designed to prepare students for employment operating a variety of heavy equipment, such as a crawler tractor, paving machine, trench digging machine, conveyor, bulldozer, dredge, pump, compressor, pneumatic tool, motor grader, scraper, power shovel, dragline and crane. It also contains information relating to current technology in construction equipment operating systems. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic and leadership skills required for entry into construction equipment operation occupations. The program utilizes a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience and the Career and Technical Student Organization, SkillsUSA-VICA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8

The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10

The following courses are recommended as part of a Comprehensive CTE HEAVY EQUIPMENT OPERATION Program:

99.0200.10 **Industrial Technology:** Students should complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies.

Heavy Equipment Operation (continued)

Level III
Grades
11-12

The following describes the recommended sequence of courses Grades developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated HEAVY EQUIPMENT OPERATION competencies are addressed in this instructional sequence.

49.0200.10 **Heavy Equipment Operation Fundamentals:** This course prepares students to apply technical knowledge and skills to operate a variety of heavy equipment, such as a crawler tractors, motor graders and scrapers and shovels, including dragline, hoe and cranes. It includes instruction in digging, ditching, sloping, stripping, grading, backfilling, clearing and excavating.

One of the following Level III courses will be included as part of the instructional sequence for this program:

49.0200.20 **Heavy Equipment Operation Advanced Applications:** This course prepares students for advanced technical knowledge and skills using a variety of construction equipment operation techniques and equipment.

49.0200.80 **Heavy Equipment Operation-Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the **Heavy Equipment Operation** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE HEAVY EQUIPMENT OPERATION PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Industrial Technology	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
	<i>Approved Areas ITT, VTT</i>	No Approvals Necessary
Business Management Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB
	<i>Approved Areas BUS, VDE, VME, VOE</i>	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Heavy Equipment Operation	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
	<i>Approved Areas ITT, VTT</i>	No Approvals Necessary
Note:		
Teacher/Coordinator for 49.0200.60 is required to have a Cooperative Education Endorsement (CEN).		
Heavy Equipment Operation 49.0200.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE HEAVY EQUIPMENT OPERATION PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	BUS Business Education
PVB Provisional Vocational Business	ITT Industrial Technology Education
PVBM Provisional Vocational Business and Marketing	VDE Vocational Distributive Education
PVI Provisional Vocational Industrial Technology	VME Vocational Marketing Education
PVM Provisional Vocational Marketing	VOE Vocational Office Education
SVB Standard Vocational Business	VTT Vocational Trade and Technical Education
SVBM Standard Vocational Business and Marketing	This Space Intentionally Blank
SVI Standard Vocational Industrial Technology	
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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PROGRAM: Hospitality Management

PROGRAM
CIP CODE: 52.0900

DESCRIPTION: *The **Hospitality Management** program is designed to prepare students for employment in positions that provide customer-focused services in such facilities as hotels, resorts, convention centers, national parks, RV Parks, travel agencies and cruise lines. A student completing this program will possess the knowledge and skills associated with reservations and front desk operations, meeting and banquet room support services, food and beverage support services, housekeeping, laundry operations, supervisory functions and environmental functions. In addition to these skills, students will possess advanced employability skills including critical and conceptual thinking, communications, applied academics, life management and technology. This program utilizes a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience and the Career and Technical Student Organizations, FCCLA or DECA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8 *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10 *The following courses are recommended as part of a Comprehensive CTE HOSPITALITY MANAGEMENT Program:*

99.0500.10 **Life Connections:** Students should complete this Level II cluster or attain these competencies. This is recommended for students who have a special interest in improving human interaction skills.

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who have an interest in proprietorships, management and supervisory occupations.

Hospitality Management (continued)

Level III
Grades
11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated HOSPITALITY MANAGEMENT competencies are addressed in this instructional sequence.

52.0900.10 ***Hospitality Management Principles:*** This course prepares students for a variety of occupations in all segments of the hospitality industry.

One of the following Level III courses will be included as a part of the instructional sequence for this program:

52.0900.20 ***Hospitality Management Applications:*** The outcomes of this course are integrated into learning projects, simulations and internships to demonstrate the full range of Hospitality Management competencies. Certification may be obtained from the American Hotel and Lodging Association upon successfully completing the Lodging Management Program Assessment.

52.0900.80 ***Hospitality Management-Cooperative Education:*** This course utilizes a cooperative education methodology to combine school based or supervised work-based learning experiences directly related to the competencies identified for the ***Hospitality Management*** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE HOSPITALITY MANAGEMENT PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certification.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Life Connections	CERTIFICATES	
	Types: BVT, SVT	Types: PVF, SVF, PVH, SVH
	Approved Areas VHO FCS, HEC, VHE, VRO	No Approvals Necessary
Business Management Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVB, SVB, PVM, SVM
	Approved Areas BUS, VDE, VME, VOE	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Hospitality Management	CERTIFICATES	
	Types: BVT, SVT	Types: PVF, SVF, PVBM, SVBM, PVB, SVB, PVM, SVM
	Approved Areas BUS, VDE, VME, VOE, FCS, HEC, VHE, VRO	No Approvals Necessary
Note:		
Teacher/Coordinator for 52.0900.80 is required to have a Cooperative Education Endorsement (CEN).		
Hospitality Management 52.0900.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE HOSPITALITY MANAGEMENT PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	BUS Business Education
PVB Provisional Vocational Business	FCS Family and Consumer Sciences Education
PVBM Provisional Vocational Business and Marketing	HEC Home Economics Education
PVF Provisional Vocational Family Consumer Sciences	VDE Vocational Distributive Education
PVH Provisional Vocational Health Occupations	VHE Vocational Home Economics
PVM Provisional Vocational Marketing	VHO Vocational Health Occupations
SVB Standard Vocational Business	VME Vocational Marketing Education
SVBM Standard Vocational Business and Marketing	VOE Vocational Office Education
SVF Standard Vocational Family Consumer Sciences	VRO Vocational Related Occupations
SVH Standard Vocational Health Occupations	This Space Intentionally Blank
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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PROGRAM: Law, Public Safety and Security

**PROGRAM
CIP CODE:** 43.0100

DESCRIPTION: *The **Law, Public Safety and Security** instructional program prepares students to perform technical services involved with planning, organizing, researching, directing and controlling functions and processes related to the provision of law, public safety and security services. An integrated approach to teaching and learning is provided as students develop interpersonal relations, career development skills and technical knowledge and skills associated with careers in this growing field. Students completing this program will be prepared to participate in teams, solve problems, think critically and implement effective solutions. The program is designed and delivered as a coherent sequence of experiences using technical instruction, academic foundations, experiential learning, supervised occupational experience and leadership and personal development through the Career and Technical Student Organization, SkillsUSA-VICA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

**Level I
Grades
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

**Level II
Grades
9-10** *The following courses are recommended as part of a Comprehensive CTE LAW, PUBLIC SAFETY AND SECURITY Program:*

99.0500.10 **Life Connections:** Students should complete this Level II cluster or attain these competencies.

99.0100.10 **Information Technology:** Students may complete this Level II cluster or attain these competencies if Life Connections is not available.

Law, Public Safety and Security (continued)

99.0400.10 ***Business Management Technology:*** Students may complete this Level II cluster or attain these competencies if Life Connections is not available.

Level III
Grades
11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated LAW, PUBLIC SAFETY AND SECURITY competencies are addressed in this instructional sequence.

43.0100.10 ***Fundamentals of Law, Public Safety and Security:***
This course introduces students to careers in Law, Public Safety and Security and prepares students to apply academic, employability and technical knowledge and skills related to common industry standards and practices of Law, Public Safety and Security.

One of the following Level III courses will be included as part of the instructional sequence for this program:

43.0100.20 ***Law, Public Safety and Security Advanced Applications:*** This course prepares students to apply advanced academic and technical knowledge and skills in a variety of settings within Law, Public Safety and Security.

43.0100.80 ***Law, Public Safety and Security-Cooperative Education:*** This course utilizes cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the ***Law, Public Safety and Security*** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE LAW, PUBLIC SAFETY AND SECURITY PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Life Connections	CERTIFICATES	
	Types: BVT, SVT	Types: PVF, SVF, PVH, SVH
	Approved Areas VHO FCS, HEC, VHE, VRO	No Approvals Necessary
Information Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB, PVI, SVI
	Approved Areas ITT, VTT, BUS, VDE, VME, VOE	No Approvals Necessary
Business Management Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB
	Approved Areas BUS, VDE, VME, VOE	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Law, Public Safety and Security	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
	Approved Areas ITT, VTT	No Approvals Necessary
Note:		
Teacher/Coordinator for 43.0100.80 is required to have a Cooperative Education Endorsement (CEN).		
Law, Public Safety and Security 43.0100.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE LAW, PUBLIC SAFETY AND SECURITY PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	BUS Business Education
PVB Provisional Vocational Business	FCS Family and Consumer Sciences Education
PVBM Provisional Vocational Business and Marketing	HEC Home Economics Educations
PVF Provisional Vocational Family Consumer Sciences	ITT Industrial Technology Education
PVH Provisional Vocational Health Occupations	VDE Vocational Distributive Education
PVI Provisional Vocational Industrial Technology	VHE Vocational Home Economics
PVM Provisional Vocational Marketing	VHO Vocational Health Occupations
SVB Standard Vocational Business	VME Vocational Marketing Education
SVBM Standard Vocational Business and Marketing	VOE Vocational Office Education
SVF Standard Vocational Family Consumer Sciences	VRO Vocational Related Occupations
SVH Standard Vocational Health Occupations	VTT Vocational Trade and Technical Education
SVI Standard Vocational Industrial Technology	This Space Intentionally Blank
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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PROGRAM: Marketing, Management and Entrepreneurship

PROGRAM

CIP CODE: 52.1800

DESCRIPTION: *The **Marketing, Management and Entrepreneurship** program is designed to prepare students for employment in various sales, customer service, advertising and promotion and first-line supervisory positions in wholesale, retail and service establishments. A student completing this program will possess the knowledge and develop technical skills associated with meeting occupational objectives in the fields of Marketing, Management and Entrepreneurship. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic and leadership skills required for entry into marketing, management and entrepreneurial occupations. The program is designed and delivered as a coherent sequence of experiences made up of technical instruction, experiential learning, supervised occupational experience and leadership and personal development through the Career and Technical Student Organization, DECA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

**Level I
Grades
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

**Level II
Grades
9-10** *The following courses are recommended as part of a Comprehensive CTE MARKETING, MANAGEMENT AND ENTREPRENEURSHIP Program:*

99.0400.10 **Business Management Technology:** Students should complete this Level II cluster or attain these competencies.

99.0500.10 **Life Connections:** If Business Management Technology is not available, students may complete this Level II cluster or attain these competencies.

99.0100.10 **Information Technology:** If Business Management Technology is not available, students may complete this Level II cluster or attain these competencies.

Marketing, Management and Entrepreneurship (continued)

Level III
Grades
11-12

*The following describes the recommended sequence of courses organized on the basis of industry-recognized skills necessary for initial employment or continued related education. All the Level III state-designated **MARKETING, MANAGEMENT AND ENTREPRENEURSHIP** competencies are addressed in this instructional sequence:*

52.1800.10 **Marketing, Management and Entrepreneurship:** This course is designed to prepare students for employment in various sales, customer service, advertising and promotion and first-line supervisory positions in wholesale, retail and service areas.

One of the four Level III options (.20 or .30 or .40 or .50) will be included as part of the instructional sequence for this program:

52.1800.20 **Professional Sales and Marketing:** This course prepares students to perform marketing functions and tasks as they relate to selling and retailing.

52.1800.30 **E-Commerce Marketing:** This course prepares students to perform marketing and management functions and tasks that can be applied to the selling of goods and services over the Internet.

52.1800.40 **Entertainment Marketing:** This course prepares students to perform marketing and management functions and tasks that can be applied to amateur or professional sports or sporting events; and entertainment or entertainment services; and attracting and servicing the traveling public.

52.1800.50 **Entrepreneurship:** This course provides students opportunities to determine benefits and risks of self-employment and develop a specific competence in starting a small business.

-And program may elect to add-

52.1800.80 **Marketing, Management and Entrepreneurship-Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the **Marketing, Management and Entrepreneurship** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE MARKETING, MANAGEMENT AND ENTREPRENEURSHIP PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
	CERTIFICATES	
	Types: BVT, SVT	Types: PVB, SVB, PVM, SVM, PVB, SVB
Business Management Technology	<i>Approved Areas</i> BUS, VDE, VME, VOE	No Approvals Necessary
Life Connections	<i>Approved Areas</i> VHO, FCS, HEC, VHE, VRO	No Approvals Necessary
Information Technology	<i>Approved Areas</i> ITT, VTT, BUS, VDE, VME, VOE	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
	CERTIFICATES	
	Types: BVT, SVT	Types: PVB, SVB, PVM, SVM, PVB, SVB
Marketing, Management and Entrepreneurship	<i>Approved Areas</i> BUS, VDE, VME, VOE	No Approvals Necessary
Note:		
Teacher/Coordinator for 52.1800.80 is required to have a Cooperative Education Endorsement (CEN).		
Marketing, Management and Entrepreneurship 52.1800.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE MARKETING, MANAGEMENT AND ENTREPRENEURSHIP PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	BUS Business Education
PVB Provisional Vocational Business	FCS Family and Consumer Sciences Education
PVBM Provisional Vocational Business and Marketing	HEC Home Economics Education
PVF Provisional Vocational Family Consumer Sciences	ITT Industrial Technology Education
PVH Provisional Vocational Health Occupations	VDE Vocational Distributive Education
PVI Provisional Vocational Industrial Technology	VHE Vocational Home Economics
PVM Provisional Vocational Marketing	VHO Vocational Health Occupations
SVB Standard Vocational Business	VME Vocational Marketing Educator
SVBM Standard Vocational Business and Marketing	VOE Vocational Office Education
SVF Standard Vocational Family Consumer Sciences	VRO Vocational Related Occupations
SVH Standard Vocational Health Occupations	VTT Vocational Trade and Technical Education
SVI Standard Vocational Industrial Technology	This Space Intentionally Blank
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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PROGRAM: Nursing Services

PROGRAM

CIP CODE: 51.1600

DESCRIPTION: *The **Nursing Services** instructional program prepares students to perform technical services involved with planning, organizing, researching, directing and controlling functions and processes related to the provision of nursing assisting services. The Arizona State Board of Nursing must approve Nursing Assistant programs. An integrated approach to teaching and learning is provided as students develop interpersonal relations, career development skills and technical knowledge and skills associated with nursing assisting and the pathway into other careers in nursing. Students completing this program will have the opportunity to take the Arizona examination to become a Certified Nursing Assistant (CNA), and be prepared to participate in teams, solve problems, think critically and implement effective solutions. The program is designed and delivered as a coherent sequence of experiences using technical instruction, academic foundations, experiential learning, supervised occupational experience and leadership and personal development through the Career and Technical Student Organization, SkillsUSA-VICA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8 *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10 *The following courses are recommended as part of a Comprehensive CTE NURSING SERVICES Program:*

99.0300.30 **Applied Biological Systems-Health:** Students should complete this Level II cluster or attain these competencies.

99.0500.10 **Life Connections:** Students may complete this Level II cluster or attain these competencies if Applied Biological Systems–Health is not available.

Nursing Services (continued)

Level III
Grades
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated **NURSING SERVICES** competencies are addressed in this instructional sequence.*

51.1600.10 **Fundamentals of Nursing Services:** This course prepares students to apply academic, employability and technical knowledge and skills related to common industry standards and practices of nursing assisting within the nursing profession.

One of the following Level III courses will be included as part of the instructional sequence for this program:

51.1600.20 **Nursing Services Advanced Applications:** This course prepares students to apply advanced academic and technical knowledge and skills related to nursing assisting in a variety of settings within the nursing profession.

51.1600.80 **Nursing Services-Cooperative Education:** This course utilizes cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the **Nursing Services** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE NURSING SERVICES PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Applied Biological Systems- Health	CERTIFICATES	
	Types: BVT, SVT	Types: PVA, SVA, PVH, SVH
	Approved Areas VHO AGR, VHO	No Approvals Necessary
Life Connections	Types: BVT, SVT	Types: PVF, SVF, PVH, SVH
	Approved Areas VHO, FCS, HEC, VHE, VRO	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Nursing Services	CERTIFICATES	
	Types: BVT, SVT	Types: PVH, SVH
	Approved Areas VHO	No Approvals Necessary
Note:		
Teacher/Coordinator for 51.1600.80 is required to have a Cooperative Education Endorsement (CEN).		
Nursing Services 51.1600.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE NURSING SERVICES PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	AGR Agriculture Education
PVA Provisional Vocational Agriculture	FCS Family and Consumer Sciences Education
PVF Provisional Vocational Family Consumer Sciences	HEC Home Economics Education
PVH Provisional Vocational Health Occupations	VAG Vocational Agriculture
SVA Standard Vocational Agriculture	VHE Vocational Home Economics
SVF Standard Vocational Family Consumer Sciences	VHO Vocational Health Occupations
SVH Standard Vocational Health Occupations	VRO Vocational Related Occupations
SVT Standard Vocational Education Teacher	
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PROGRAM: Precision Metal Working

PROGRAM

CIP CODE: 48.0500

DESCRIPTION: *The **Precision Metal Working** program is designed to prepare students for employment in machining or welding jobs. The program is comprised of a core curriculum and two specialty options: Welding Technology and Machining Technology. The core curriculum provides individuals with critical thinking, career development, life management, business, economic and leadership skills required for precision metal working occupations. The Welding Technology option prepares individuals to apply technical knowledge and skills to join or cut metal surfaces. Includes instruction in arc welding, resistance welding, brazing and soldering, cutting, high-energy beam welding and cutting, solid state welding, ferrous and non-ferrous materials, oxidation-reduction reactions, welding metallurgy, welding processes and heat treating, structural design, safety and applicable codes and standards. The Machining Technology option prepares individuals to apply technical knowledge and skills to plan, manufacture, assemble, test and repair parts, mechanisms, machines and structures in which materials are cast, formed, shaped, molded, heat treated, cut, twisted, pressed, fused, stamped or worked.*

In addition to technical skills, students completing this program will also develop advanced critical thinking, career development, applied academic, life management, business, economic and leadership skills required for precision metal working occupations. The program uses a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience and the Career and Technical Student Organization, SkillsUSA-VICA.

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

**Level I
Grades
7-8**

The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Precision Metal Working (continued)

Level II Grades 9-10

The following courses are recommended as part of a Comprehensive CTE PRECISION METAL WORKING Program:

99.0200.10 **Industrial Technology:** Students **should** complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management Technology:** Students **may** complete this Level II cluster or attain these competencies. This is recommended for students who have an interest in sole proprietorships, management and supervisory occupations.

Level III Grades 11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated PRECISION METAL WORKING competencies are addressed in this instructional sequence.

48.0500.10 **Precision Metal Working Core Curriculum:** This course prepares students to apply basic safety principles and practices used in precision metal working occupations. Students learn how to correctly use basic hand tools, power tools and related shop equipment-mig and tig welders, etc. Other units of instruction include career planning and development.

Two of the four Level III courses (.20 & .30 or .40 & .50) will be included as part of the instruction sequence for this program:

48.0500.20 **Welding Technology I:** Prepares individuals to apply basic technical knowledge and skills to join or cut metal surfaces. Includes instruction in blueprint reading, arc welding, brazing, soldering, cutting, safety and applicable codes and standards.

48.0500.30 **Welding Technology II:** This course prepares individuals to apply advanced technical knowledge and skills using a variety of welding techniques and equipment. Instruction includes Welding and Cutting Theory, Inspection and Testing, Electrical Fundamentals, Drawing and Welding Symbols, Fabrication Principles and Practices and Safety. Graduates should be prepared to pass the American Welding Society's Test for an Entry Level Welder.

-or-

Precision Metal Working (continued)

48.0500.40 ***Machining Technology I:*** Prepares individuals to apply basic technical knowledge and skills to plan, manufacture, assemble, test and repair parts, mechanisms, machines and structures in which materials are cast, formed, shaped, molded, heat treated, cut, twisted, pressed, fused, stamped or worked.

48.0500.50 ***Machining Technology II:*** This course prepares individuals to apply advanced technical knowledge and skills to operate machine tools used in forming of metal components, as well as the fabrication of special tools, dies, jigs and fixtures used in cutting, working and finishing metal components. Graduates should be prepared to pass the National Institute for Metalworking Skills, Inc. Test for Machining Skills-Level I.

-And program may elect to add:

48.0500.80 ***Precision Metal Working-Cooperative Education:*** This course utilizes cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the ***Precision Metal Working*** program.

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TEACHER CERTIFICATION REQUIREMENTS FOR THE PRECISION METAL WORKING PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Industrial Technology	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
	<i>Approved Areas ITT, VTT</i>	No Approvals Necessary
Business Management Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB
	<i>Approved Areas BUS, VDE, VME, VOE</i>	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Precision Metal Working	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
	<i>Approved Areas ITT, VTT</i>	No Approvals Necessary
Note:		
Teacher/Coordinator for 48.0500.80 is required to have a Cooperative Education Endorsement (CEN).		
Precision Metal Working 48.0500.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE PRECISION METAL WORKING PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	BUS Business Education
PVB Provisional Vocational Business	ITT Industrial Technology Education
PVBM Provisional Vocational Business and Marketing	VDE Vocational Distributive Education
PVI Provisional Vocational Industrial Technology	VME Vocational Marketing Education
PVM Provisional Vocational Marketing	VOE Vocational Office Education
SVB Standard Vocational Business	VTT Vocational Trade and Technical Education
SVBM Standard Vocational Business and Marketing	This Space Intentionally Blank
SVI Standard Vocational Industrial Technology	
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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PROGRAM: Radio/Television Technology

PROGRAM

CIP CODE: 10.0200

DESCRIPTION: *The **Radio/Television Technology** program is designed to prepare students for employment in various audio development, production, installation and delivery occupations. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic and leadership skills required for radio/television technology occupations. The program utilizes a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience and the Career and Technical Student Organization, SkillsUSA-VICA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8 *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10 *The following courses are recommended as part of a Comprehensive CTE RADIO/TELEVISION TECHNOLOGY Program:*

99.0100.10 **Information Technology:** Students should complete this Level II cluster or attain these competencies.

99.0200.10 **Industrial Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who have a special interest in equipment maintenance and installation.

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who have a special interest in business ownership, sales, promotion and advertising.

Radio/Television Technology (continued)

Level III
Grades
11-12

The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated RADIO/TELEVISION TECHNOLOGY competencies are addressed in this instructional sequence.

10.0200.10 ***Radio/Television Technology Fundamentals:***

Students will gain experience in the development, production and delivery of information, with an emphasis on integrated systems. Competencies will include aesthetics, the principles and elements of design, as well as basic installation, operation and maintenance of audio and video equipment.

One of the following Level III courses will be included as part of the instructional sequence for this program:

10.0200.20 ***Radio/Television Technology Advanced Applications:***

This course prepares students for advanced technical knowledge and skills using a variety of Radio/Television Technology techniques and equipment.

10.0200.80 ***Radio/Television Technology-Cooperative***

Education: This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the ***Radio/Television Technology*** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE RADIO/TELEVISION TECHNOLOGY PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
	CERTIFICATES	
	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB, PVI, SVI
Information Technology	<i>Approved Areas ITT, VTT, BUS, VDE, VME, VOE</i>	No Approvals Necessary
Industrial Technology	Types: BVT, SVT	Types: PVI, SVI
	<i>Approved Areas ITT, VTT</i>	No Approvals Necessary
Business Management Technology	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB
	<i>Approved Areas BUS, VDE, VME, VOE</i>	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
Radio/Television Technology	<i>Approved Areas ITT, VTT</i>	No Approvals Necessary
Note:		
Teacher/Coordinator for 10.0200.80 is required to have a Cooperative Education Endorsement (CEN).		
Radio/Television Technology 10.0200.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE RADIO/TELEVISION TECHNOLOGY PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	BUS Business Education
PVB Provisional Vocational Business	ITT Industrial Technology Education
PVBM Provisional Vocational Business and Marketing	VDE Vocational Distributive Education
PVI Provisional Vocational Industrial Technology	VME Vocational Marketing Education
PVM Provisional Vocational Marketing	VOE Vocational Office Education
SVB Standard Vocational Business	VTT Vocational Trade and Technical Education
SVBM Standard Vocational Business and Marketing	This Space Intentionally Blank
SVI Standard Vocational Industrial Technology	
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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PROGRAM: Woodworking

PROGRAM

CIP CODE: 48.0700

DESCRIPTION: *The **Woodworking** program is designed to prepare students for employment in the field of millwork and woodworking. Instruction includes job planning, drafting, material layout, cutting, shaping, assembling, finishing of wood pieces and installing hardware. It also contains information related to drafting, production and installation. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic and leadership skills required for woodworking occupations. The program utilizes a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience and the Career and Technical Student Organization, SkillsUSA-VICA.*

RECOMMENDED PROGRAM SEQUENCE OF COURSES:

Level I
Grades
7-8 *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete the Level I experience or attain these competencies.

Level II
Grades
9-10 *The following courses are recommended as part of a Comprehensive CTE WOODWORKING Program:*

99.0200.10 **Industrial Technology:** Students should complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies.

Level III
Grades
11-12 *The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III state-designated WOODWORKING competencies are addressed in this instructional sequence.*

Woodworking (continued)

48.0700.10 ***Woodworking Fundamentals:*** This course prepares students to apply technical knowledge and skills to set up, operate and repair industrial woodworking machinery and to use such machinery to design and fabricate wooden components and complete articles.

One of the following Level III courses will be included as part of the instructional sequence for this program:

48.0700.20 ***Woodworking Advanced Applications:*** This course prepares students for advanced technical knowledge and skills using a variety of woodworking techniques and equipment.

48.0700.80 ***Woodworking-Cooperative Education:*** This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the ***Woodworking*** program.

TEACHER CERTIFICATION REQUIREMENTS FOR THE WOODWORKING PROGRAM		
LEVEL I: The instructor, or one member of the teaching team*, must be vocationally certified with any vocational certificate.		
LEVEL II: The instructor, or one member of the teaching team*, must be vocationally certified according to the following table:		
Industrial Technology	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
	<i>Approved Areas ITT, VTT</i>	No Approvals Necessary
Business Management Technology	CERTIFICATES	
	Types: BVT, SVT	Types: PVBM, SVBM, PVM, SVM, PVB, SVB
	<i>Approved Areas BUS, VDE, VME, VOE</i>	No Approvals Necessary
LEVEL III: The instructor must be vocationally certified according to the following table:		
Woodworking	CERTIFICATES	
	Types: BVT, SVT	Types: PVI, SVI
	<i>Approved Areas ITT, VTT</i>	No Approvals Necessary
Note:		
Teacher/Coordinator for 48.0700.80 is required to have a Cooperative Education Endorsement (CEN).		
Woodworking 48.0700.70 may be a part of the sequence and the teacher must hold a Cooperative Educative Endorsement (CEN).		
* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.		

CERTIFICATE ABBREVIATIONS FOR THE WOODWORKING PROGRAM	
CERTIFICATE TYPES:	APPROVED AREAS:
BVT Basic Vocational Education Teacher	BUS Business Education
PVB Provisional Vocational Business	ITT Industrial Technology Education
PVBM Provisional Vocational Business and Marketing	VDE Vocational Distributive Education
PVI Provisional Vocational Industrial Technology	VME Vocational Marketing Education
PVM Provisional Vocational Marketing	VOE Vocational Office Education
SVB Standard Vocational Business	VTT Vocational Trade and Technical Education
SVBM Standard Vocational Business and Marketing	This Space Intentionally Blank
SVI Standard Vocational Industrial Technology	
SVM Standard Vocational Marketing	
SVT Standard Vocational Education Teacher	
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MISSIONS AND CONTACTS

The staff at the Arizona Department of Education provides leadership for Career Technical Education Program development, implementation and improvement. Programmatic responsibilities are organized according to the following areas:

- Agricultural Education
- Business and Marketing Education
- Education Professions
- Family and Consumer Sciences Education
- Health and Community Services Education
- Industrial Technology Education

The purpose of this section is to provide you with the following:

- Program mission and goals
- Career and Technical Student Organizations (CTSO) information
- CTE Program assignments
- Contact information

AGRICULTURAL EDUCATION

MISSION: The mission of Agricultural Education is to prepare and support individuals for careers, build awareness and develop leadership for the food fiber and natural resource system.

GOALS: Agricultural Education's philosophy and goals make it an integral segment of public education which prepares students for: employment in agricultural occupations; continuing education and training offered by private and public post secondary institutions; business and industry; and agricultural business ownership and/or managerial responsibilities. Agricultural Education provides for curriculum articulation enabling students to progress from basic through specialized competencies.

HIGHLIGHTS: The essential components of agricultural education are formal instruction, experiential education and leadership and personal development. Students are encouraged to have a Supervised Agriculture Experience during each level of their education.

CAREER AND TECHNICAL STUDENT ORGANIZATION: Agricultural Education's CTSO is the FFA Organization (Future Farmers of America). FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education. These experiences are supported through intra-curricular leadership development programs offered by FFA Chapters affiliated with the Arizona Association FFA and the National FFA.

RELATED PROGRAMS:

01.0300 Agricultural Business Management – Agriscience
01.0600 Agricultural Business Management – Horticulture
03.0200 Agricultural Business Management – Renewable Natural Resources

CONTACT PERSONS:

State Supervisor, Agricultural Education
602-542-5356

FFA Executive Secretary
602-542-5564

Arizona Department of Education
1535 West Jefferson Street
Phoenix, AZ 85007
Fax: 602-542-1849
1-800-352-4558 (ADE Receptionist)

BUSINESS AND MARKETING EDUCATION

MISSION: The mission of Business Education is to prepare individuals with academic and occupational skills and knowledge necessary to successfully transition from school to careers and to inform individuals about business enabling them to make informed economic decisions as responsible citizens and consumers.

MISSION: The mission of Marketing Education is to enable students to understand and apply marketing, management and entrepreneurial principles; to make rational economic decisions; and to exhibit social responsibility in a global economy.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS: Future Business Leaders of America (FBLA) is a co-curricular leadership development student organization, which serves students who have a career interest in business.

DECA (An Association of Marketing Students) is a co-curricular leadership development student organization, which serves students who have career interests related to Marketing Education. The mission of DECA is to enhance the education of students with interests in marketing, management and entrepreneurship.

RELATED PROGRAMS:

Business Education

52.0300 Accounting and Related Services
52.0400 Administrative Information Services
52.0200 Business Mgt and Admin. Services
52.0800 Financial Services

Marketing, Business and Info. Tech. Education

52.1800 Marketing, Mgt. & Entrep.
52.1200 Bus. Info. Tech. Services

CONTACT PERSONS:

State Supervisor,
Business Education
602-542-5046

State Supervisor, Marketing Education
and Business Information Technology
602-542-5049

FBLA State Advisor
602-542-5350

DECA State Advisor
602-542-5354

Arizona Department of Education
1535 West Jefferson Street
Phoenix, AZ 85007
Fax: 602-542-1849
1-800-352-4558 (ADE Receptionist)

EDUCATION PROFESSIONS

MISSION: The mission of Education Professions is to prepare individuals for careers in education, develop leadership skills through classroom instruction, work-based learning experiences and mentoring opportunities.

GOALS: The goals of Education Professions are to offer a viable career path for high school students with post secondary articulation opportunities. To help address the growing need for education professionals and provide service-learning experiences through tutor/mentoring opportunities

HIGHLIGHTS: Education Professions initially grew from a “Future Teachers of America” (FTA) club in the Peoria Unified School District. In 1999 Peoria’s FTA organization applied and was awarded a Learn and Serve America grant with the objective of developing the club into a two-year course with the primary goal of delivering service through tutoring/mentoring field experiences to feeder schools. The program received Learn and Serve America funding for three consecutive years

In 2002 three divisions at the Arizona Department of Education, Career and Technical Education, Exceptional Student Services and Academic Support, began a collaborative effort to create a program based on the Peoria model that could be replicated throughout the state that would address the above goals. The essential element of a successful Education Professions program remains to be school-based instruction reinforced by extensive field experience using service-learning as the delivery method.

CAREER AND TECHNICAL STUDENT ORGANIZATION: Future Educators of America (FEA) is a co-curricular student organization that provides high school students with opportunities to explore teaching as a career option. Students gain a realistic understanding of the nature of education, the role of the teacher and develop leadership skills through activities, competitive events and service-learning projects.

RELATED PROGRAMS:

13.1500 Education Professions

CONTACT PERSONS:

State Supervisor, Education Professions
602-542-4365

Arizona Department of Education
1535 West Jefferson Street
Phoenix, AZ 85007
Fax: 602-542-1849
1-800-352-4558 (ADE Receptionist)

FAMILY AND CONSUMER SCIENCES EDUCATION

MISSION: The mission of Family and Consumer Sciences Education is to prepare students for family life, work life and careers in family and consumer sciences by providing opportunities to develop the knowledge, skills, attitudes and behaviors needed for them to live and work as productive citizens in a global society.

GOALS: The goal of Family and Consumer Sciences Education is to strengthen the well being of individuals and families across the life span, become responsible citizens and leaders in families, communities and work settings and promote optimal nutrition and wellness. Family and Consumer Sciences Education promotes management of resources to meet the material needs of individuals and families as they function as producers and consumers of goods and services. Critical thinking skills are developed to address problems in diverse family, community and work environments while appreciating human worth and accepting responsibility for one's actions.

HIGHLIGHTS: The core of Family and Consumer Sciences curriculum focuses on the success of students as well-adjusted individuals functioning productively in a diverse society.

CAREER AND TECHNICAL STUDENT ORGANIZATION: Comprehensive and Occupational Family and Consumer Sciences Education curricula are delivered through competency-based experiences, which allow students to refine academic skills while developing and applying specific occupational skills. These experiences are supported through co-curricular leadership development programs offered by FCCLA (Family, Career and Community Leaders of America).

RELATED PROGRAMS:

12.0500 Culinary Arts
13.1200 Early Childhood Professions
52.1900 Fashion Design and Merchandising
52.0900 Hospitality Management

CONTACT PERSONS:

State Supervisor, Family and Consumer Sciences Education
602-542-5487

FCCLA Advisor
602-542-3040

Arizona Department of Education
1535 West Jefferson Street
Phoenix, AZ 85007
Fax: 602-542-1849
1-800-352-4558 (ADE Receptionist)

HEALTH AND COMMUNITY SERVICES EDUCATION

MISSION: The mission of Health and Community Services Education is to enhance the learning of students by providing educational opportunities for understanding, developing and applying academic, employability and technical concepts and skills related to careers in Health and Community Services. Partnerships with businesses, professionals and educators support this endeavor.

GOALS: The goal of Health and Community Services Education is to prepare individuals to live and work as productive citizens in our global society by providing competency-based programs and essential educational experiences. These experiences include classroom instruction, hands-on laboratory activities and industry-based experiences.

HIGHLIGHTS: Industry standards and laws apply to qualifications for teachers in Health and Community Services Education. Refer to the new Allied Health Services curriculum framework for information related to professionals qualified to teach each option. Cosmetology instructors must be licensed by the Arizona Board of Cosmetology. Law, Public Safety and Security programs focusing on policing skills need a POST certified instructor. The Nursing Services Programs must have RNs licensed by the Arizona Board of Nursing.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS: Comprehensive Health and Community Services Education curricula are delivered through competency-based experiences, which allow students to refine academic skills while developing and applying specific occupational skills. These experiences are supported through co-curricular leadership development programs offered by SkillsUSA-VICA.

RELATED PROGRAMS:

51.0800 Allied Health Services
12.0400 Cosmetology
43.0200 Fire Science
43.0100 Law, Public Safety and Security
51.1600 Nursing Services

CONTACT PERSONS:

State Supervisor, Health and Community Services Education
602-542-3374

SkillsUSA-VICA State Advisor
602-542-5565

Arizona Department of Education
1535 West Jefferson Street
Phoenix, AZ 85007
FAX: 602-542-1849
1-800-352-4558 (ADE Receptionist)

INDUSTRIAL TECHNOLOGY EDUCATION

MISSION: The mission of Industrial Technology Education is to work in cooperation with businesses, professionals, apprenticeships, trades and industries to continuously improve the contents of all Industrial Technology Education programs. Our goal is to prepare all individuals to live and work as productive citizens in our global society by providing essential work, education and training experiences.

GOALS: Recommended “End of Program Tests” or “alternative assessments” will be identified for specific programs. Students passing the test will be considered a program completer. The National Occupational Competency Testing Institute (NOCTI) also provides validated test for many of the Industrial Technology Education programs.

HIGHLIGHTS: Automotive Technologies program graduates will be able to receive Automotive Service Excellence (ASE) certification. Construction Technologies program and Welding program graduates will be able to receive National Center for Construction Education and Research (NCCER) certification in their craft specialty area. Machining Technology program graduates will be able to receive National Institute for Metalworking Skills (NIMS) certification. Certification for other programs will be identified once the curriculum is aligned with the national standards.

CAREER AND TECHNICAL STUDENT ORGANIZATION: Comprehensive Industrial Technology Education curricula are delivered through competency-based experiences, which allow students to refine academic skills while developing and applying specific occupational skills. These experiences are supported through co-curricular leadership development programs offered by SkillsUSA-VICA

RELATED PROGRAMS:

47.0600	Automotive Technologies	47.0200	Heating, Ventilation & Air Conditioning
46.0400	Construction Technologies	49.0200	Heavy Equipment Operation
15.1300	Drafting/Design Technology	48.0500	Precision Metal Working
46.0300	Electrical & Power Transmission Tech	10.0200	Radio/Television Technology
15.0300	Electronics Technology	48.0700	Woodworking
10.0300	Graphic Communications		

CONTACT PERSONS:

State Supervisor, Industrial Technology Education
602-542-5423

SkillsUSA-VICA State Advisor
602-542-5565

Arizona Department of Education
1535 West Jefferson Street
Phoenix, AZ 85007
Fax: 602-542-1849
1-800-352-4558 (ADE Receptionist)

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DATA REPORTING OVERVIEW

The Handbook is the primary resource document needed to complete all data reporting. The Career and Technical Education Division will provide/mail districts the following additional documents each year:

- Calendar of specific due dates
- 40th and 100th Day Course Enrollment Report Forms and/or reminder letter of due date for submission of reports
- Program Enrollment Verification Reports
- Placement Student Survey and Concentrator Record Layouts

The data submitted to the Arizona Department of Education on these reports **are used to generate the Career and Technical Education State Block Grant Funding and Performance Measures**. The Management Information Services Unit staff will review and process the completed forms as they are submitted. Verification reports will be returned to districts for signature and returned to ADE verifying submission of data. In some cases, verification reports returned to districts may need corrections and resubmission.

Districts may select one of the following options for submission of Course Enrollment data:

- Disk (file must be in ASCII text format). Web-site address for ASCII format: <http://www.ade.state.az.us/misinternet/filelayout/vocicour.asp>
- Email to STWDataCollection@ade.az.gov (file attachment must be in ASCII text format)
- Online Data Collection website: <http://www3.ade.az.gov/PerfMeasures/splash.asp>
Log into the Performance Measures system and select the Enrollment option. Both Course Enrollment and Program Enrollment data entry are available. The online instructions are included in the web pages. For more information, see the online user manuals at: <http://www.ade.az.gov/cte/API/default.asp> - they are the last user manuals listed: NEW! Course Enrollment Data Entry Function and NEW! Program Enrollment Data Entry Function.

Data reporting activities are important. **They require accuracy and time to complete.** The information in the section of this Handbook will be of assistance in completing the required reporting documents.

The information in this section has been organized to reflect the order reports are due to the Arizona Department of Education and includes:

Course Enrollment Reports –

40th Day Enrollment Report (original and verification)

100th Day Enrollment Report (original and verification)

End of the Year Reports –

Program Enrollment Report

Placement Student Survey Report and Concentrator Reports

If you have questions please contact the Management Information Systems Unit for assistance. Phone: 602-542-7881 or 602-542-5486 or 602-542-5711.

40th DAY COURSE ENROLLMENT

NOTE: A.R.S. 15-902.G requires that districts report vocational education student enrollment data to the Department of Education within 12 days after the district's 40th day in session and the district's 100th day in session. These dates vary from district to district so each district will need to determine the district's due date.

The 40th Day Course Enrollment data is to be reported on all Career and Technical Education (CTE) classes and **represents one-half of the data used to determine State Block formula funding** for CTE programs (total enrollment is the average enrollment for 40th and 100th days). This enrollment collection system emulates the state Average Daily Membership (ADM) reporting system used for general education funding. The difference between the two is that ADM requires students be counted every day during the school year. The resulting number is then averaged for the year.

The CTE enrollment system captures actual enrollment on the 40th day and 100th day of school. The 40th and 100th day count data are averaged and the resulting number is the enrollment figure for each course for the year. Since all students enrolled in CTE courses are counted, this is called duplicated enrollment as one student may be enrolled in more than one course. The 40th and 100th day forms collect information on every CTE course your district offers and includes the district, school, course number, semester, period, teacher number, grade level and special population information. Some fields are used to report unusual course information: students attending another district, or a course taught by a college instructor.

Districts report on Level I, II and III courses. But only Level III courses that are part of an approved program and taught by appropriately certified teachers will generate state funding. Special population students must be receiving services under the provisions of an IVEP to be reported as a special population category. These students are to be reported only in their most prominent category (unduplicated). Please contact your assigned Federal Programs Specialist regarding questions on this topic.


Enrollment, reported by course, is related to programs on the CTE Program List. The CTE Program List, along with the average student counts, is the basis of the state CTE enrollment funding formula.

200X Course Enrollment Forms

40th Day

1. To complete or change Course Enrollment Information, click on Modify next to the appropriate Course Number.
2. Click Add to enter Course Enrollment Information for a course that does not appear in the listing, or to create a Delete record. To create a Delete record, Click on Add and then choose the delete button in the transaction code of the record – then fill in the key information to create a Delete record.
3. When the Course Enrollment information is complete, the current date will appear in the Updated box.
4. After all Course Enrollment records are complete, please notify Career and Technical Education by sending an email to:

STWDataCollection@ade.az.gov

Enrollments for 07-05-16-201 - AGUA FRIA UNION HIGH SCHOOL				 Click Here to Add	
Course	TechPrep	Period	Grade Total	Action	
52030011	N	6	21	View	Modify
52040010	N	6	28	View	Modify
52040010	N	7	28	View	Modify
52040010	N	7	29	View	Modify

Sample

40TH DAY VERIFICATION REPORTS

VOCI 11-1

VOCI 11-2

The data, which has been submitted for district 40th Day Enrollment Reports will be keyed and exported onto the Course Enrollment Master, the VOCI 21 Report. A printout will be mailed titled **40th Day Verification Report**. This report provides the opportunity to verify the data and to make corrections, if needed. Please make corrections using the online system or emailing a text file to: STWDataCollection@ade.az.gov. The Verification Report will be mailed in one or two sections:

A. Records Added to the Vocational Education Course Enrollment file, VOCI 11-1.

The enrollment data from a school/district which has been added to the Voc Ed Course Enrollment Master - VOCI 21 files. Since this data is used to determine funding, it should be reviewed for accuracy. If all the data is correct as submitted, the district will receive only this Verification Report, the VOCI 11-1.

B. Records Not Added to the Vocational Education Course Enrollment file, VOCI 11-2. The district will receive this report if the enrollment data from a school/district cannot be added to the Voc Ed Course Enrollment Master - VOCI 21 files because of errors. Since this data is used to determine funding, it is critical that the problems/solutions be identified and corrected prior to the deadline. A calendar with specific dates will be mailed annually to you. Error messages are listed under each line of data on this report, identifying data corrections that need to be made. A "Common Errors" booklet is also included with the reports to assist with the identifying and resolving of data errors. Some of the common errors are:

- Invalid district or school number
- Invalid course number
- Certification issues
- Total does not agree with the sum of the individual grade counts
- Course has minutes outside of the normal range
- Course meets for over 1200 minutes per week

Please Note: The 40th Day Enrollment reports now provide essential information affecting program eligibility. It is important that a district submits reports and verifies the accuracy of the reported information by the deadline dates. Due to the need for accurate and timely reporting, CTE funding will be interrupted when a district fails to meet the reporting deadline. Funding resumes when the problem has been corrected. If the problem is not corrected, funding does not resume.

REPORT NAME: VOCI 11-1

ARIZONA DEPARTMENT OF EDUCATION
40TH DAY CTE VOCATIONAL ENROLLMENT VERIFICATION REPORT
SCHOOL YEAR 200X-200X

REPORT DATE: 03/08/02
PAGE 1

CTD: SCH:
COUNTY:
DISTRICT:
SCHOOL:

RECORDS ADDED TO THE VOC. ED. ENROLLMENT FILE

THE FOLLOWING INFORMATION REFLECTS THE ENROLLMENT DATA SUBMITTED BY YOUR DISTRICT.
PLEASE REVIEW IT FOR CORRECTNESS.

PLEASE MAKE ANY CHANGES IF REQUIRED, SIGN THE REPORT and RETURN IT TO THE:

ARIZONA DEPARTMENT OF EDUCATION
CTE VOCATIONAL EDUCATION
MANAGEMENT INFORMATION SERVICES UNIT, BOX 36
1535 WEST JEFFERSON STREET
PHOENIX, AZ 85007
(602)542-5486

I CERTIFY THAT THE INFORMATION SUBMITTED IS TRUE AND CORRECT TO THE BEST OF MY
KNOWLEDGE and THAT DOCUMENTATION WILL BE MAINTAINED FOR AUDITING AND MONITORING PURPOSES.

DATE SIGNATURE OF SUPERINTENDENT OR AUTHORIZED OFFICIAL

CONTACT PERSON ----- PHONE -----

										SPECIAL NEEDS					ENROLLMENT COUNTS										ANOTHER SCH. AND SCH. NO.	
TRAN	COURSE CODE		MIN PER	NO OF			TECH	CERTIFICATE NO.		ECON	ACAD															
CODE	COURSE TITLE	TERM	WEEK	WKS	ROOM	PREP	TEACHER'S NAME	HND	CP	DIS	DIS	SP	M	F	09	10	11	12	TOTAL	COUNT	CTDS					
A	08.0900.21 Hospitality Svc App	2	2	0255	18	0103	N	***** TANNER	001	000	002	001	000	0000	0006	000	000	002	004	0006	0000	0000000000				
A	46.0400.11 Building Maint Fund	2	6	0230	18	001A	N	***** MONTGOMERY	003	000	001	002	000	0011	0003	000	005	008	001	0014	0000	0000000000				

Sample

PAGE 1

RECORDS NOT ADDED TO THE VOC. ED. ENROLLMENT FILE

PLEASE MAKE ANY CHANGES IF REQUIRED, SIGN THE REPORT and RETURN IT TO THE:

NUMBER OF
STUDENTS
TAKING VOC.
COURSES IN
ANOTHER SCH.
AND SCH. NO.

										SPECIAL NEEDS					ENROLLMENT COUNTS										ANOTHER SCH. AND SCH. NO.	
TRAN COURSE CODE		MIN PER	NO OF	TECH CERTIFICATE NO.				ECON		ACAD																
CODE	COURSE TITLE	TERM	PER	WEEK	WKS	ROOM	PREP	TEACHER'S NAME	HND	CP	LEP	ADV	ADV	SP	M	F	09	10	11	12	TOTAL	COUNT	CTDS			
A	50.0400.10	2	1	0225	18	0141	Y	*****	000	001	001	000	000	0009	0010	007	005	004	002	0019	0000	0000000000				
Visual Communic Fun								NEELY	DM								***	***	***	***	***					
**** THE SUM OF GRADES 9-12 DOES NOT EQUAL THE TOTAL ENROLLMENT																										
**** THE SUM OF (GRADES 9-12) AND THE SUM OF (MALE + FEMALE ENROLLMENT) ARE NOT EQUAL																										

Sample

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100th DAY COURSE ENROLLMENT

The 100th Day Course Enrollment data is to be reported on all Career and Technical Education (CTE) classes and **represents one-half of the data used to determine State Block formula funding** for CTE programs (total enrollment is the average enrollment for 40th and 100th days). This enrollment collection system emulates the state Average Daily Membership (ADM) reporting system used for general education funding. The difference between the two is that ADM requires students be counted every day during the school year. The resulting number is then averaged for the year.

The CTE enrollment system captures actual enrollment on the 40th day and 100th day of school. The 40th and 100th day count data are averaged and the resulting number is the enrollment figure for each course for the year. Since all students enrolled in CTE courses are counted, this is called duplicated enrollment as one student may be enrolled in more than one course. The 40th and 100th day forms collect information on every CTE course your district offers and includes the district, school, course number, semester, period, teacher number, grade level and special population information. Some fields are used to report unusual course information: students attending another district, or a course taught by a college instructor.

Districts report on Level I, II and III courses. But only Level III courses that are part of an approved program and taught by appropriately certified teachers will generate state funding. Special population students must be receiving services under the provisions of an IVEP to be reported as a special population category. These students are to be reported only in their most prominent category (unduplicated). Please contact your assigned Federal Programs Specialist regarding questions on this topic.


Enrollment, reported by course, is related to programs on the CTE Program List. The CTE Program List, along with the average student counts, is the basis of the state CTE enrollment funding formula.

200X Course Enrollment Forms

100th Day

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2. Click Add to enter Course Enrollment Information for a Course that does not appear in the listing, or to create a Delete record. To create a Delete record, click on Add and then choose the Delete button in the transaction code of the record – then fill in the key information to create a Delete record.
3. When the Course Enrollment information is complete, the current date will appear in the Updated box.
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STWDataCollection@ade.az.gov

Enrollments for 07-05-16-201 - AGUA FRIA UNION HIGH SCHOOL				 Click Here to Add	
Course	TechPrep	Period	Grade Total	Action	
52030011	N	6	21	View	Modify
52040010	N	6	28	View	Modify
52040010	N	7	28	View	Modify
52040010	N	7	29	View	Modify

Sample

100TH DAY VERIFICATION REPORTS

VOCI 11-1

VOCI 11-2

The data, which has been submitted for district 100th Day Enrollment Reports, will be keyed and exported onto the Course Enrollment Master Report, VOCI 21. A printout will be mailed titled **100th Day Verification Report**. This report provides the opportunity to verify the data and to make corrections, if needed. The Verification Report will be mailed in one or two sections:

A. Records Added to the Vocational Education Course Enrollment file, VOCI 11-1.

The enrollment data from a school/district which has been added to the Voc Ed Course Enrollment Master - VOCI 21 files. Since this data is used to determine funding, it should be reviewed for accuracy. If all the data is correct as submitted, the district will receive only this Verification Report, the VOCI 11-1.

B. Records Not Added to the Vocational Education Course Enrollment file, VOCI 11-2. The district will receive this report if the enrollment data from a school/district cannot be added to the Voc Ed Course Enrollment Master - VOCI 21 files because of errors. Since this data is used to determine funding, it is critical that the problems/solutions be identified and corrected prior to the deadline. A calendar with specific dates will be mailed annually to you. Error messages are listed under each line of data on this report, identifying data corrections that need to be made. A "Common Errors" booklet is also included with the reports to assist with the identifying and resolving of data errors. Some of the common errors are:

- Invalid district or school number
- Invalid course number
- Certification issues
- Total does not agree with the sum of the individual grade counts
- Course has minutes outside of the normal range
- Course meets for over 1200 minutes per week

Please Note: The 100th Day Enrollment reports now provide essential information affecting program eligibility. It is important that a district submits reports and verifies the accuracy of the reported information by the deadline dates. Due to the need for accurate and timely reporting, CTE funding will be interrupted when a district fails to meet the reporting deadline. Funding resumes when the problem has been corrected. If the problem is not corrected, funding does not resume.

REPORT NAME: VOCI 11-1

ARIZONA DEPARTMENT OF EDUCATION
100TH DAY CTE VOCATIONAL ENROLLMENT VERIFICATION REPORT
SCHOOL YEAR 200X-200X

REPORT DATE: 03/08/02
PAGE 1

CTD: SCH:
COUNTY:
DISTRICT:
SCHOOL:

RECORDS ADDED TO THE VOC. ED. ENROLLMENT FILE

THE FOLLOWING INFORMATION REFLECTS THE ENROLLMENT DATA SUBMITTED BY YOUR DISTRICT.
PLEASE REVIEW IT FOR CORRECTNESS.

PLEASE MAKE ANY CHANGES IF REQUIRED, SIGN THE REPORT and RETURN IT TO THE:

ARIZONA DEPARTMENT OF EDUCATION
CTE VOCATIONAL EDUCATION
MANAGEMENT INFORMATION SERVICES UNIT, BOX 36
1535 WEST JEFFERSON STREET
PHOENIX, AZ 85007
(602)542-5486

I CERTIFY THAT THE INFORMATION SUBMITTED IS TRUE AND CORRECT TO THE BEST OF MY
KNOWLEDGE and THAT DOCUMENTATION WILL BE MAINTAINED FOR AUDITING AND MONITORING PURPOSES.

DATE SIGNATURE OF SUPERINTENDENT OR AUTHORIZED OFFICIAL

CONTACT PERSON ----- PHONE -----

										SPECIAL NEEDS					ENROLLMENT COUNTS										ANOTHER SCH. AND SCH. NO.							
TRAN	COURSE	CODE		MIN	NO			TECH	CERTIFICATE	NO.	ECON					ACAD																
CODE	COURSE	TITLE	TERM	PER	WEEK	WKS	ROOM	PREP	TEACHER'S	NAME	HND	CP	LEP	ADV	ADV	SP	M	F	09	10	11	12	TOTAL	COUNT	CTDS							
A	08.0900.21		2	2	0255	18	0103	N	*****		001	000	002	001	000	0000	0006	000	000	002	004	0006	0000	0000000000								
	Hospitality Svc App								TANNER		EA																					
A	46.0400.11		2	6	0230	18	001A	N	*****		003	000	001	002	000	0011	0003	000	005	008	001	0014	0000	0000000000								
	Building Maint Fund								MONTGOMERY		DL																					

Sample

REPORT NAME: VOCI 11-2 ERROR REPORT ARIZONA DEPARTMENT OF EDUCATION REPORT DATE: 03/13/02
 100TH DAY CTE VOCATIONAL ENROLLMENT VERIFICATION REPORT PAGE 1
 SCHOOL YEAR 200X-200X

CTD: SCH:
 COUNTY:
 DISTRICT: *RECORDS NOT ADDED TO THE VOC. ED. ENROLLMENT FILE*
 SCHOOL: -----

THE FOLLOWING INFORMATION REFLECTS THE ENROLLMENT DATA SUBMITTED BY YOUR DISTRICT.
 PLEASE REVIEW IT FOR CORRECTNESS. BASIC ERRORS HAVE BEEN UNDERLINED and ERROR MESSAGES INCLUDED.
 RECORDS WITH ERRORS WILL NOT BE ADDED TO THE ENROLLMENT FILE AND THE STUDENTS WILL NOT BE COUNTED FOR FUNDING.
 PLEASE MAKE ANY CHANGES IF REQUIRED, SIGN THE REPORT and RETURN IT TO THE:

ARIZONA DEPARTMENT OF EDUCATION
 CTE VOCATIONAL EDUCATION
 MANAGEMENT INFORMATION SERVICES UNIT, BOX 36
 1535 WEST JEFFERSON STREET
 PHOENIX, AZ 85007
 (602)542-5486

I CERTIFY THAT THE INFORMATION SUBMITTED IS TRUE AND CORRECT TO THE BEST OF MY
 KNOWLEDGE and THAT DOCUMENTATION WILL BE MAINTAINED FOR AUDITING AND MONITORING PURPOSES.

 DATE SIGNATURE OF SUPERINTENDENT OR AUTHORIZED OFFICIAL

CONTACT PERSON ----- PHONE -----

										SPECIAL NEEDS				ENROLLMENT COUNTS								NUMBER OF STUDENTS TAKING VOC. COURSES IN ANOTHER SCH. AND SCH. NO.	
TRAN COURSE CODE		MIN NO		PER OF		TECH CERTIFICATE NO.		ECON ACAD		DIS DIS													
CODE	COURSE TITLE	TERM	PER	WEEK	WKS	ROOM	PREP	TEACHER'S NAME	HND	CP	LEP	ADV	ADV	SP	M	F	09	10	11	12	TOTAL COUNT	CTDS	
A	47.0600.41	1	1	0425	18	STAR	Y	*****	000	001	000	001	000	0002	0000	000	000	001	001	0002	0003	0000000000	
	Auto Collision Repa							GRANT	GW					****	****	***	***	***	***	****	****		
**** THE SUM OF GRADES 9-12 DOES NOT EQUAL THE TOTAL ATTENDING COUNT																							
**** THE SUM OF MALE + FEMALE ENROLLMENT DOES NOT EQUAL THE ATTENDING COUNT																							

Sample

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IMPROPER TEACHER CERTIFICATION REPORT VOCI 17

The purpose of this report is to alert each district to the non-certification status of the teacher for a Career and Technical Education (CTE) program. **This report is disseminated to districts along with the 40th and 100th day Verification reports so that all certifications are in place for program areas before the end of February each school year.**

Reasons for non-certification include:

- Invalid teacher certification number
- Certification types, approvals and endorsements are invalid for the CTE program

The report will also indicate the **required** certification types, approvals and endorsements.

COUNTY:	ARIZONA DEPARTMENT OF EDUCATION	VOCI17
TYPE:	CAREER AND TECHNICAL EDUCATION	REPORT DATE: 03/13/03
DISTRICT:		REPORT PAGE: 1
SCHOOL:	IMPROPER TEACHER CERTIFICATION	SCHOOL PAGE: 1
	SECONDARY 40TH DAY - 200X-200X	

TEACHER NUMBER	TEACHER NAME	P E R M	T E R M	CRSE CODE	CRSE CODE TITLE	CERTIFICATION	ENDORSEMENT	MAJOR	APPROVAL
*****	CLOW	PE 3	1	52040010	Admin Services	SEC	LEN		
*****	CLOW	PE 4	1	52040010	Admin Services	SEC	LEN		
*****	CLOW	PE 3	2	52040010	Admin Services	SEC	LEN		
*****	CLOW	PE 4	2	52040010	Admin Services	SEC	LEN		
*** TEACHER LACKS REQUIREMENTS *** CRSE CODE REQUIREMENTS-BVT OR SVT OR PVT OR AVT AND VOE OR VBS OR BUS OR VDE OR PVB OR SVB OR PVM OR SVM PVBM OR SVBM									
*****	CLOW	PE 5	1	52040011	Admin Services	SEC	LEN		
*****	CLOW	PE 5	2	52040011	Admin Services	SEC	LEN		
*** TEACHER LACKS REQUIREMENTS *** CRSE CODE REQUIREMENTS-BVT OR SVT OR PVT OR AVT AND VOE OR VBS OR BUS OR VDE OR PVB OR SVB OR PVM OR PVBM OR SVBM									

Sample

SAMPLE CERTIFICATES

A teacher with the certificates listed below does not have the appropriate vocational certificate. These are examples of **secondary** provisional and standard certificates.

Arizona Department of Education CERTIFICATE				
Name JANE DOE			Certificate Number 123456789	
Certificate	Valid Date	Expiration Date	Approved Areas	Deficiencies
Provisional Secondary Education, 7-12	01/01/2002	02/18/2004	Family and Consumer Science	AZ Con Subj Knlg
ARIZONA DEPARTMENT OF EDUCATION 1535 West Jefferson Street * Phoenix, Arizona 85007			Endorsement	Tom Horne TOM HORNE State Superintendent of Public Instruction

Arizona Department of Education CERTIFICATE				
Name JANE DOE			Certificate Number 123456789	
Certificate	Valid Date	Expiration Date	Approved Areas	Deficiencies
Standard Secondary Education, 7-12	01/01/2002	02/18/2008	Family and Consumer Science	
ARIZONA DEPARTMENT OF EDUCATION 1535 West Jefferson Street * Phoenix, Arizona 85007			Endorsement	Tom Horne TOM HORNE State Superintendent of Public Instruction

SAMPLE CERTIFICATES

Either the provisional or standard vocational certificate is an acceptable certificate to teach Family and Consumer Sciences programs. Note that the provisional vocational certificate has two deficiencies that must be removed within one year for the provisional certificate to remain valid for the second year.

Arizona Department of Education CERTIFICATE				
Name JANE DOE			Certificate Number 123456789	
Certificate	Valid Date	Expiration Date	Approved Areas	Deficiencies
Provisional Vocational Family Consumer Sciences	01/01/2002	02/18/2004		AZ Con Subj Kldg
ARIZONA DEPARTMENT OF EDUCATION 1535 West Jefferson Street * Phoenix, Arizona 85007			Endorsement Tom Horne TOM HORNE State Superintendent of Public Instruction	

Arizona Department of Education CERTIFICATE				
Name JANE DOE			Certificate Number 123456789	
Certificate	Valid Date	Expiration Date	Approved Areas	Deficiencies
Standard Vocational Family Consumer Sciences	01/01/2002	02/18/2008		
ARIZONA DEPARTMENT OF EDUCATION 1535 West Jefferson Street * Phoenix, Arizona 85007			Endorsement Tom Horne TOM HORNE State Superintendent of Public Instruction	

COURSE ENROLLMENT MASTER REPORT VOCI 21

The purpose of the **Course Enrollment Master Report VOCI 21** is to record district student enrollment data that generates funding by:

- Providing a complete enrollment summary report of data submitted by the district
- Defining the programs that should report Performance Measures information including Concentrator and Placement program records
- Listing the coherent sequence of program courses offered

REPORT NAME: VOCI 21-1
REPORT DATE: 01/22/02

ARIZONA DEPARTMENT OF EDUCATION
CTE VOCATIONAL EDUCATION COURSE ENROLLMENT
MASTER PRINT OF 40TH DAY ENROLLMENT
SCHOOL YEAR 200X-200X

PAGE 1

CTDS:
COUNTY:
DISTRICT:
SCHOOL:

NUMBER OF
STUDENTS
TAKING VOC.
COURSES IN
ANOTHER SCH.

TECH														SPECIAL NEEDS														COURSES IN					
COURSE NO:TM:PER: WKS:PREP: CERT NO : CERT :														ECON		ACAD		ENROLLMENT COUNTS														ANOTHER SCH.	
-----:-----																																	

PROGRAM ENROLLMENT

NOTE: The current Carl D. Perkins legislation requires the reporting of program enrollment information. ARS 15-781.01 contains similar requirements under Arizona law. Failure to submit the end-of-year report (Program Enrollment) of career and technical students may result in the withholding or discontinuation of state and federal career and technical education funds. In addition, the Concentrator information and Placement follow-up information must be submitted as a part of your Performance Measures documentation that will be submitted by July 1st.

Comprehensive Program Enrollment data reflect demographic data such as enrollment by grade, sex, ethnic group and special populations and Tech Prep. For special population categories and counts, the district/school must identify the primary need of the student and select it as the student's category. A student is to be reported in no more than one special population category.


Comprehensive Program Enrollment data is collected using unduplicated student counts. Unduplicated enrollment means that each student is counted only once, even if that student is enrolled in more than one program. It is the district's responsibility to use the student's occupational goal when identifying the program for reporting purposes.

The Comprehensive Program Enrollment data entry form will be available on the Performance Measures online system. Districts are required to submit the end-of-the year reports at the end of the school year. Therefore, it is critical to maintain a system for determining and documenting each student's program area (courses taken are to support the student's program of study). It is also important to remember that each student should be assigned only one Program CIP Code (six digits).

The only codes to be used on the program enrollment form are those listed as CTE Program CIP Codes (six digit) found as a separate tab in this handbook. Use of an invalid code will cause the entire line of data to be rejected. **Do not use Course Codes on this form (eight digits).** *Districts are reminded that they will still need to maintain an individual student record system, which will allow identification of each student's program, gender, ethnicity and special needs classifications and completer status.*

200X Program Enrollment Forms

1. To complete Program Enrollment Information, click on Modify next to the appropriate Program Name.
2. Click Add to complete Program Enrollment Information for a Program that does not appear in the listing.
3. When the Program Enrollment information is complete, the current date will appear in the Updated box.

Enrollments for 07-05-16-201 - AGUA FRIA UNION HIGH SCHOOL				 Click Here to Add	
Program	TechPrep	Program Total	Action		
520400	N	20	View	Modify	Delete

Sample

PROGRAM ENROLLMENT VERIFICATION REPORT
VOCI 25
and
PROGRAM ENROLLMENT MASTER REPORT
VOCI 26

The data submitted from the district for program enrollment will be processed and districts will receive printouts titled **Program Enrollment Verification and Program Enrollment Master Reports**. These reports are sent for verification of data submitted and may also contain errors that need to be corrected. The Verification Report must be corrected, signed and returned to ADE. The Master Report is provided for district record keeping.

NOTE: The data for the annual report to the Arizona Legislature is drawn from the statewide student count of career and technical programs.

- A. The **Program Enrollment Verification Report - VOCI 25** provides the opportunity to update the information in the master database. Please make corrections using the online system or email a text file to: STWDataCollection@ade.az.gov.
- B. The **Program Enrollment Master Report - VOCI 26** contains records that are loaded on the ADE database and will be the basis of the Final Program Enrollment Report. This data is used for federal and state reporting purposes.

REPORT NAME: VOCI 25-1
CTY TYPE DIST SCH
COUNTY:
DISTRICT:
SCHOOL:

ARIZONA DEPARTMENT OF EDUCATION
SECONDARY CTE VOCATIONAL EDUCATION
PROGRAM ENROLLMENT VERIFICATION REPORT
SCHOOL YEAR XX-XX

REPORT DATE: 06/05/02
PAGE: 1

THE FOLLOWING INFORMATION REFLECTS THE PROGRAM ENROLLMENT SUBMITTED BY YOUR DISTRICT.
PLEASE REVIEW IT FOR CORRECTNESS. BASIC ERRORS HAVE BEEN UNDERLINED and ERROR
MESSAGES INCLUDED.

PLEASE MAKE ANY CHANGES IF REQUIRED, SIGN THE REPORT and RETURN IT TO THE:

ARIZONA DEPARTMENT OF EDUCATION
CTE VOCATIONAL EDUCATION
MANAGEMENT INFORMATION UNIT, BOX 36
1535 WEST JEFFERSON STREET
PHOENIX, ARIZONA 85007
(602) 542 - 5486

I CERTIFY THAT THE INFORMATION SUBMITTED IS TRUE AND CORRECT TO THE BEST OF MY
KNOWLEDGE and THAT DOCUMENTATION WILL BE MAINTAINED FOR AUDITING AND MONITORING PURPOSES.

DATE SIGNATURE OF SUPERINTENDENT OR AUTHORIZED OFFICIAL

CONTACT PERSON PHONE

* PROGRAM		*TP*		ENROLLMENT		*	*	ENROLLMENT BY						*	ENROLLMENT BY SPECIAL					*	TOTAL	
TRAN	* CIP CODE	*ER*		BY GRADE		*	ENROLLMENT	*	ETHNIC GROUP AND SEX						*	NEEDS GROUP AND SEX					*	PROGRAM
CODE	* TITLE	*HP*	09	10	11	12	BY SEX	*	WHITE	BLACK	HISPANIC	INDIAN	ASIAN	*	HAND	LEP	ECON	ACAD	SP	*	COUNT	
A	120500	N	10	20	16	12	* MALE:	24	14	0	7	3	0	9	2	0	15	0	*	58		
	Food Prod/Culinary						* FEMALE:	34	27	0	6	1	0	7	1	0	13	0	*			

Sample

REPORT NAME: VOCI 26-1
REPORT DATE: 08/03/02

ARIZONA DEPARTMENT OF EDUCATION
CAREER AND TECHNICAL EDUCATION
MASTER PRINT - PROGRAM ENROLLMENT

PAGE 1

CTDS:
COUNTY:
DISTRICT:
SCHOOL:

SCHOOL YEAR XX-XX

PROG CODE	PROGRAM TITLE	*TP *ER* *CE* *HP*	09	ENROLLMENT BY GRADE 10	11	12	* * ENROLL * * BY SEX *	* * ETHNIC GROUP AND SEX * WHIT	BLAK	HISP	INDAN	ASAN	* * ENROLLMENT BY SPECIAL * NEEDS GROUP AND SEX * HAND	LEPS	ECON	ACAD	SP	* * TOTAL * PROG * COUNT
120500	Food Prod/Culinary	N	0	3	9	9	*M: 9 *F: 12	6	0	3	0	0	5	0	0	7	0	* 21
200200	Early Childhood Prof	N	3	3	3	2	*M: 3 *F: 8	2	0	1	0	0	1	1	0	3	0	* 11
469900	Building Trades	N	0	6	5	2	*M: 11 *F: 2	7	0	3	1	0	1	0	0	2	0	* 13
470600	Vehicle/Mobile Equip	N	0	11	14	17	*M: 33 *F: 9	24	0	7	2	0	7	1	0	12	0	* 42
480500	Precision Metal Work	N	0	0	5	3	*M: 5 *F: 3	5	0	0	0	0	1	0	0	3	0	* 8
500400	Visual Communication	N	0	19	10	11	*M: 22 *F: 18	15	0	7	0	0	0	0	0	2	0	* 40
520300	Accounting	N	0	1	2	2	*M: 4 *F: 1	4	0	0	0	0	0	0	0	0	0	* 5
520400	Admin Info Services	N	0	1	3	6	*M: 7 *F: 3	5	0	2	0	0	0	0	0	1	0	* 10
990100	Information Tech	N	4	10	4	5	*M: 9 *F: 14	7	0	1	1	0	0	0	0	1	0	* 23
990200	Industrial Tech	N	20	22	4	0	*M: 37 *F: 9	31	0	4	2	0	1	0	0	6	0	* 46
990300	Appl Biological Sys	N	2	5	1	2	*M: 5 *F: 5	1	0	2	2	0	1	0	0	2	0	* 10
990400	Business Mgmt Tech	N	80	17	7	6	*M: 58 *F: 52	44	0	10	4	0	3	0	0	8	0	* 110
=====			=====															
ENROLLMENT TOTALS			109	98	67	65	*M: 203 *F: 136	151	0	40	12	0	19	1	0	47	0	* 339
								100	0	18	18	0	6	2	0	24	0	*

Sample

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PRELIMINARY AND FINAL FUNDING REPORTS
BY SCHOOL - VOCI 51-1
BY DISTRICT - VOCI 51-2

Career and Technical Education State Block Grant funding will be allocated for the current fiscal year based on each district's CTE enrollment and placement reporting. Seventy five percent of CTE State Block Grant funds will be allocated to CTE enrollment. Twenty five percent of the funds will be allocated to placement. District performance measures data must be submitted in order to be eligible for State Block Grant and Federal Basic Grant funding. Programs must meet, exceed, or make substantial improvement towards the state adjusted levels of performance to ensure continued eligibility for funding. Depending on changes in state legislation, future criteria for distribution of CTE State Block Grant funding will include (in addition to enrollment and placement) academic attainment, work-based participation and vocational proficiency.

The information submitted and verified for the 40th and 100th Day Reports is summarized in the Course Enrollment Master Report - VOCI 21. Data from the VOCI 21 report is combined with a formula and then used for generation of the **Preliminary and Final Funding Reports - VOCI 51-1 and VOCI 51-2**. **VOCI 51-1** reflects funding generated by Courses on the CTE Program List by **school**. **VOCI 51-2** reflects funding generated by Courses on the CTE Program List by **district**. The Preliminary Funding Report allows districts to identify problems that impact state allocations. Some of the problems may include the following:

- The teacher is not certified for a course
- No concentrator counts were submitted for a program
- No placement counts were submitted for a program
- Unapproved programs – Coop only course offered
- Program does not meet sufficient size and scope
- No N.O.I. (Notification of Intent) filed for the program

There are Three Funding Reports:

- A. **Preliminary Funding Report - VOCI 51-1 and VOCI 51-2:** This report provides (*Preliminary*) notification of the funding dollars a district may generate from Block Grant monies. This report also provides the opportunity to verify the enrollment data and to make corrections, if inadvertently, ADE did not record data the district submitted. Previously unrecorded data will be reflected on the Final Funding Reports. Errors related to a course not receiving funds due to Performance Measures issues should be referred to the Program Improvement Unit at 602-542-5358. The Preliminary Funding Report amounts are not final. Do not submit the CTE Block Grant application based on the Preliminary Funding Report.

- B. **Final Enrollment Funding Report - VOCI 51-1 and VOCI 51-2:** This report provides the notification of the Final funding dollars available to the district from Block Grant monies. An application must be completed by the district to generate these monies. For questions related to the state funding formula, please contact Grants and Management Information Services at 602-542-5349.

- C. **Final Placement Funding Report:** Placement funding paid in the current fiscal year is for CTE program samplers, concentrators and completers who graduated and are in a related placement nine months after graduation. Placements may be in post secondary education or advanced training, military services, or employment. Funding is earned only if the placement is related to the graduate's secondary CTE program of study. A related placement is one that obviously uses or builds on the occupational competencies acquired in the graduate's secondary CTE program.

VOCI 51-1

ARIZONA DEPARTMENT OF EDUCATION
CTE VOCATIONAL EDUCATION
FINAL FUNDING REPORT
FYXX ENROLLMENT - FOR FYXX FUNDING

DATE 11/06/02
PAGE 1

CTY TYPE DIST SCH

RATE FOR FULL, WEIGHTED AVERAGE STUDENT COUNT: \$140.25

COUNTY: IMPORTANT: THIS REPORT IS NOT A NOTIFICATION OF FUNDING FOR YOUR DISTRICT.IT'S DESIGNED TO BE USED
DISTRICT: AS A PLANNING TOOL. THE FINAL FUNDING CALCULATIONS WILL BE BASED ON AN AVERAGE OF YOUR
SCHOOL: 40TH DAY AND 100TH DAY ENROLLMENT COUNTS.

COURSE CRSE CODE	COURSE CRSE CODE TITLE	P MIN. E PER R WEEK	NO. OF ROOM WKS NO.	TP ER CE HP	TEACHER'S NAME	TEACHER'S CERT NO.	9-12 AVG CNT	11-12 AVG CNT	ELIGIBLE WEIGHTED COUNT	TOTAL ENROLLMENT FUNDING
NON-ARTICULATED COURSES -----										
2. ADMIN INFO SERVICES (WEIGHT - 1.0000000000)										
52.040010	Admin Services	5	0250 18 7	N	ROGERS	*****	1.50	0.50	0.55	\$77.92
52.040010	Admin Services	5	0250 18 7	N	ROGERS	*****	1.50	0.50	0.55	\$77.92
52.040020	Admin Support Sys	1	0250 18 7	N	ROGERS	*****	0.50	0.50	0.55	\$77.92
52.040020	Admin Support Sys	3	0250 18 7	N	ROGERS	*****	5.50	5.00	5.55	\$779.17
52.040070	Admin Support COOP	4	1100 18 18	N	LAYTON	*****	4.50	4.50	4.50	\$631.13
52.040070	Admin Support COOP	4	1100 18 18	N	LAYTON	*****	4.50	4.50	4.50	\$631.13
TOTAL ADMIN INFO SERVICES							18.00	15.50	16.20	\$2,275.19
4. SALES AND MARKETING (WEIGHT - 1.0000000000)										
08.070010	Sales & Marketing	3	0250 18 7	N	ROGERS	*****	5.00	4.00	4.44	\$623.33
TOTAL SALES AND MARKETING							5.00	4.00	4.44	\$623.33
7. FOOD PROD/CULINARY (WEIGHT - 1.0000000000)										
12.050020	Food Prod/Cul Appl	2	0250 18 17	N	CRAWFORD	*****	2.00	2.00	2.22	\$311.67
12.050020	Food Prod/Cul Appl	3	0250 18 17	N	CRAWFORD	*****	1.50	1.50	1.66	\$233.75
12.050020	Food Prod/Cul Appl	4	0250 18 17	N	CRAWFORD	*****	4.50	3.50	3.88	\$545.42
12.050020	Food Prod/Cul Appl	5	0250 18 17	N	CRAWFORD	*****	3.50	1.00	1.11	\$155.83
12.050020	Food Prod/Cul Appl	7	0250 18 17	N	CRAWFORD	*****	0.50	0.50	0.55	\$77.92
12.050020	Food Prod/Cul Appl	4	0250 18 17	N	CRAWFORD	*****	3.00	3.00	3.33	\$467.50
12.050020	Food Prod/Cul Appl	5	0250 18 17	N	CRAWFORD	*****	2.50	2.50	2.77	\$389.58
12.050021	Food Prod/Cul Appl	4	0250 18 17	N	CRAWFORD	*****	3.00	3.00	3.33	\$467.50
12.050021	Food Prod/Cul Appl	5	0250 18 17	N	CRAWFORD	*****	3.00	3.00	3.33	\$467.50

(ELIGIBLE WEIGHTED COUNT * RATE FOR FULL WEIGHTED AVG STUDENT COUNT = TOTAL FUNDING)

THIS IS NOT A NOTIFICATION OF FUNDING FOR YOUR DISTRICT

VOCI 51-2

ARIZONA DEPARTMENT OF EDUCATION
CTE VOCATIONAL EDUCATION
FINAL FUNDING REPORT
FYXX ENROLLMENT - FOR FYXX FUNDING

DATE 11/06/02
PAGE 1

CTY TYPE DIST

RATE FOR FULL, WEIGHTED AVERAGE STUDENT COUNT: \$140.25

COUNTY: IMPORTANT: THIS REPORT IS NOT A NOTIFICATION OF FUNDING FOR YOUR DISTRICT.IT'S DESIGNED TO BE USED
DISTRICT: AS A PLANNING TOOL. THE FINAL FUNDING CALCULATIONS WILL BE BASED ON AN AVERAGE OF YOUR
40TH DAY AND 100TH DAY ENROLLMENT COUNTS.

COURSE CRSE CODE	COURSE CRSE CODE TITLE	9-12 AVERAGE COUNT	11-12 AVERAGE COUNT	ELIGIBLE WEIGHTED COUNT	TOTAL ENROLLMENT FUNDING	TP ER CE HP
NON-ARTICULATED COURSES -----						
2. ADMIN INFO SERVICES (WEIGHT - 1.0000000000)						
52.040010	Admin Services	3.00	1.00	1.10	\$155.84	N
52.040020	Admin Support Sys	6.00	5.50	6.10	\$857.09	N
52.040070	Admin Support COOP	9.00	9.00	9.00	\$1,262.26	N
TOTAL	ADMIN INFO SERVICES	18.00	15.50	16.20	\$2,275.19	
4. SALES AND MARKETING (WEIGHT - 1.0000000000)						
08.070010	Sales & Marketing	5.00	4.00	4.44	\$623.33	N
TOTAL	SALES AND MARKETING	5.00	4.00	4.44	\$623.33	
7. FOOD PROD/CULINARY (WEIGHT - 1.0000000000)						
12.050020	Food Prod/Cul Appl	17.50	14.00	15.52	\$2,181.67	N
12.050021	Food Prod/Cul Appl	14.50	11.50	12.75	\$1,792.08	N
12.050022	Food Prod/Cul Appl	6.50	6.00	6.65	\$935.00	N
12.050070	Food Prod/Cul COOP	3.50	3.50	3.50	\$490.88	N
TOTAL	FOOD PROD/CULINARY	42.00	35.00	38.42	\$5,399.63	
11. DRAFTING TECHNOLOGY (WEIGHT - 1.0000000000)						
48.010010	Draft Tech Concepts	5.50	5.00	5.55	\$779.17	N
TOTAL	DRAFTING TECHNOLOGY	5.50	5.00	5.55	\$779.17	
14. PRECISION METAL WRKR (WEIGHT - 0.9000000000)						
48.050010	Precision Metal Fund	11.00	11.00	10.98	\$1,542.74	N
TOTAL	PRECISION METAL WRKR	11.00	11.00	10.98	\$1,542.74	

(ELIGIBLE WEIGHTED COUNT * RATE FOR FULL WEIGHTED AVG STUDENT COUNT = TOTAL FUNDING)
THIS IS NOT A NOTIFICATION OF FUNDING FOR YOUR DISTRICT

(ELIGIBLE WEIGHTED COUNT * RATE FOR FULL WEIGHTED AVG STUDENT COUNT = TOTAL FUNDING)

Sample

FINAL NON-FUNDING REPORT VOCI 55

This report is intended as a tool to examine current practices related to accountability. It lists occupational courses (11th and 12th grades) that will not generate Career and Technical Education (CTE) funding. Any of these messages may be listed:

“Teacher Uncertified” message means the teacher is uncertified to teach the course listed for that period for any of the following reasons:

- Certification for the teacher may have expired and not been renewed
- Certification process for the teacher was not completed by the February 28th deadline

“Not Met Performance Measures” message means the CTE Program is unapproved for any of the following reasons:

- ADE did not receive acceptable Concentrator reports by the July 1st deadline
- ADE did not receive acceptable Placement reports by the July 1st deadline
- After receiving a designation of “program in review”, the program does not participate in the ADE directed external assessment and accountability planning process

“Unapproved Too Small” message indicates the average program enrollment submitted on the verified 40th and 100th day VOCI 21 Reports does not meet the Arizona definition of sufficient program size. Programs below these average enrollments are of insufficient size and are automatically unapproved programs. Funds are not generated for unapproved programs. The sufficient size requirement is based on the high school's ADM:

- High school sites with an ADM of less than 300 must have an average program enrollment of 5 students per semester
- High school sites with an ADM of 300 or more will need an average program enrollment of 10 students per semester

“No NOI Filed in April (of previous school year)” message indicates the district did not file a Notification of Intent (NOI) for this program for the current school year by April of the previous school year as required. A new CTE program is defined as any Level III program CIP code not reporting course enrollment and performance measures the previous year. Funds are not generated if an NOI was not filed to ADE by the April 1st deadline of the previous school year.

“Unapproved ADE Sunset” message indicates that ADE closed the program due to its failure to include the essential elements required by the Arizona State Board of Education.

For all of the above messages, the result is the same. **Funding potential is lost for the district.** This report will assist district personnel to be aware of funding impact in the hiring of properly certified teachers and the importance of meeting performance measures requirements.

VOCI 55-1

ARIZONA DEPARTMENT OF EDUCATION
CTE VOCATIONAL EDUCATION

DATE 11/08/02
PAGE 1

CTY TYPE DIST SCH STATE FUNDING LOST DUE TO PERFORMANCE MEASURES OR CERTIFICATION PROBLEMS
OR INSUFFICIENT SIZE OR NO N.O.I. FILED IN 4/200X
FYXX ENROLLMENT - FOR FYXX FUNDING

RATE FOR FULL, WEIGHTED AVERAGE STUDENT COUNT: \$194.70

COUNTY:
DISTRICT:
SCHOOL:

COURSE CODE	COURSE CODE TITLE	P E R WEEK	MIN. PER WKS	NO. OF WKS	TEACHER'S NAME	TEACHER'S CERT NO.	11-12 AVG CNT	ELIGIBLE WEIGHTED COUNT	TOTAL FUNDING LOST	TP ER CE HP	REASON FOR FUNDING LOST
NON-ARTICULATED COURSES											

7. FOOD PROD/CULINARY (WEIGHT - 1.0000000000)											
12.050010	Food Production Prin	1	0250	18	GRIFFIN	*****	5.50	6.11	\$757.96	N	NOT MET PERF.MEASURES
12.050010	Food Production Prin	4	0250	18	GRIFFIN	*****	5.00	5.55	\$689.06	N	NOT MET PERF.MEASURES
12.050010	Food Production Prin	6	0250	18	GRIFFIN	*****	4.00	4.44	\$551.24	N	NOT MET PERF.MEASURES
12.050010	Food Production Prin	1	0250	18	GRIFFIN	*****	5.00	5.55	\$689.06	N	NOT MET PERF.MEASURES
12.050010	Food Production Prin	4	0250	18	GRIFFIN	*****	5.50	6.11	\$757.96	N	NOT MET PERF.MEASURES
12.050010	Food Production Prin	7	0250	18	GRIFFIN	*****	4.50	4.99	\$620.15	N	NOT MET PERF.MEASURES
12.050020	Food Prod/Cul Appl	3	0250	18	GRIFFIN	*****	4.50	4.99	\$620.15	N	NOT MET PERF.MEASURES
TOTAL FOOD PROD/CULINARY							34.00	37.74	\$4,685.58		
8. BUILDING TRADES (WEIGHT - 0.8372093023)											
46.999911	Bldg Trades Fund	5	0250	18	JOHANSON	*****	2.50	2.32	\$452.79	N	NOT MET PERF. MEASURES
46.999911	Bldg Trades Fund	5	0250	18	JOHANSON	*****	2.50	2.32	\$452.79	N	NOT MET PERF. MEASURES
46.999920	Bldg Trades Applic	6	0250	18	JOHANSON	*****	6.50	6.04	\$1,177.26	N	NOT MET PERF. MEASURES
TOTAL BUILDING TRADES							15.00	13.77	\$2,689.58		

Sample

**SUMMARY NOTIFICATION OF
CTE VOCATIONAL EDUCATION ALLOCATIONS
VOCI 62**

Eligible Recipient: District name should appear here

County, Type, District: County, type and district number should appear here

Funding Category Titles: Career and Technical Education Block Grant Formula
Funding Placement Formula Funding

Allocation: Dollar figure, determined by district student count on the 40th and 100th day reports, appears here

Grand Total Allocations: The total amount of state funding for district generated by your Course Enrollment reporting

- A. **Block Grant Formula Funding:** Formula amounts by course, title and school site. This is the Block Grant dollar figure for the next fiscal year, which was generated by 11th and 12th grade student count from the 40th and 100th Day Course Enrollment Reports.
- B. **Placement Formula Funding:** The placement formula funding figure is generated by the completed surveys returned to Arizona Department of Education (ADE), by the districts on the Website.

APPLICATION FOR BLOCK GRANT FUNDS

Available district enrollment formula funding and the placement formula funding dollar amounts are listed. **Application using the forms on the Website must be made to ADE within sixty (60) days after Final Funding notification.**

If a district selects not to submit an application for the funds, those dollars will be re-divided among the districts that did submit an application for their Block Grant Enrollment and Placement dollars.

11/15/02
ARIZONA DEPARTMENT OF EDUCATION
SUMMARY NOTIFICATION OF
CTE VOCATIONAL EDUCATION ALLOCATIONS
VOCI62
FINAL FUNDING REPORT FISCAL YEAR 200x

ELIGIBLE RECIPIENT NORTHEAST UNIFIED DISTRICT

C.T.D. NUMBER 123456

FUNDING CATEGORY TITLES	ALLOCATION
-----	-----
BLOCK GRANT FORMULA FUNDING (A) *	\$12,624.83
PLACEMENT FORMULA FUNDING (B) *	\$1,268.30

GRAND TOTAL ALLOCATION *	\$13,893.13

(A) FORMULA AMOUNTS BY COURSE, TITLE AND
SCHOOL SITE ARE DETAILED IN YOUR FY 200x
CTE VOCATIONAL EDUCATION FUNDING REPORT.
(VOCI51)

(B) PLACEMENT RESULTS ARE DETAILED IN YOUR DISTRICTS
FY 200x VOCATIONAL EDUCATION PLACEMENT FUNDING
REPORT. THE RESULTS ARE LISTED BY SCHOOL AND PROGRAM.

Sample

FY200x Final Placement Funding (FY0x Student)

FINAL

FINAL

FINAL

FINAL

FINAL

CTD XXXXXX**(SAMPLE) UNIFIED DISTRICT****CTDS XXXXXXXXXX****(SAMPLE) HIGH SCHOOL****ProgramArea**

BUSINESS

Fiscal	ProgCI	ProgramTitle	StudentName	Qualify	Funding
2001	520400	Admin Info Services	BRITTNEY MINEER	Program Concentrator	\$430.35
2001	520400	Admin Info Services	DEVIN BECK	Program Concentrator	\$430.35
2001	520400	Admin Info Services	EMILY HAMMOND	Program Concentrator	\$430.35
2001	520400	Admin Info Services	ERICA N PADILLA	Program Concentrator	\$430.35
2001	520400	Admin Info Services	ERIN HALL	Program Concentrator	\$430.35
2001	520400	Admin Info Services	HEATHER SMITH	Program Concentrator	\$430.35
2001	520400	Admin Info Services	JANALEE WENGERT	Program Concentrator	\$430.35
2001	520400	Admin Info Services	KATRINA O GOODMAN	Program Concentrator	\$430.35
2001	520400	Admin Info Services	MELISSA C WATERS	Program Concentrator	\$430.35
2001	520400	Admin Info Services	REBECCA L WEBB	Program Concentrator	\$430.35
2001	520400	Admin Info Services	TARA L BURDICK	Program Concentrator	\$430.35
2001	520400	Admin Info Services	TRACI HEAP	Program Concentrator	\$430.35
SUM for 'ProgramArea' = BUSINESS			Count	12	\$5,164.20

ProgramArea

FAMILY & CONSUMER SC

Fiscal	ProgCI	ProgramTitle	StudentName	Qualify	Funding
2001	120500	Food Prod/Culinary	ANTHONY TAMBURIO	Program Concentrator	\$430.35
SUM for 'ProgramArea' = FAMILY & CONSUMER SC			Count	1	\$430.35

ProgramArea

TRADE & INDUSTRY

Fiscal	ProgCI	ProgramTitle	StudentName	Qualify	Funding
2001	470600	Vehicle/Mobile Equip	SPENCER PEW	Program Concentrator	\$430.35
SUM for 'ProgramArea' = TRADE & INDUSTRY			Count	1	\$430.35
SUM for School = SAMPLE HIGH SCHOOL					\$6,024.90

Sample

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CONCENTRATOR AND PLACEMENT SURVEY REPORTS

The **Concentrator Report** is a report completed at the end of the school year and submitted by districts to count students, by program area, who have left the district. The students whose names appear on the Concentrator Report as graduates are the students who will be followed up for the Placement Student Survey, nine months later. Students who completed a program as a junior in high school, should be counted as Concentrators in the correct program area **the year they graduate**. The Concentrator Report is due each year on July 1st.

The **Placement Survey Report** provides *placement* data for students that have left the district. This information is used in both state and federal reports. It records student demographic and placement information. This information includes the student's name, address, school, program, student type, contact type and completer type. Information about post secondary education, the military, or enrollment in a related field, is also recorded for each student. The Placement Survey Report is due each year on July 1st.

Districts and schools must submit their Concentrator and Placement Survey Reports electronically. There are three options for electronic submissions:

- Use the on-line web-based Concentrator and Placement Reports
- Send electronic files on diskettes
- Send file attachments with e-mail

Submitting data on a diskette or e-mail attachment requires the correct format so that information loads into the Performance Measures Database correctly. If you need assistance with electronic reporting and correct record formats contact Grants and Management Information Services at 602-542-7881.

For more information regarding Placement Survey Reports and Concentrator Reports, please see the **Secondary FY 2003 Guideline for Program Evaluation And Continuous Improvement**. To print a copy of these guidelines, see the online manual at: <http://www.ade.az.gov/cte/API/default.asp>. From this link scroll down to: Arizona Performance Measures Guide 2003. This is an Adobe Acrobat document that you can open and print.

CALENDAR

NOTE: Specific calendar dates will be mailed each year under separate cover.

September

Current Fiscal Year Preliminary Funding Reports mailed to LEA pending state appropriation
Response to Current Fiscal Year Preliminary Funding Report due to ADE from LEA

October

Current Fiscal Year **Final** Funding Report mailed to LEA

November

LEA submit 40th Day Course Enrollment Report
Completed, signed 40th Day Course Enrollment Reports due to ADE from LEA

December

40th Day Course Enrollment **Verification** Reports to be mailed to LEA

January

40th Day Course Enrollment **Verification** Reports due to ADE from LEA

February

LEA submit 100th Day Course Enrollment Report
District follow-up for current fiscal year Student Graduate Placements and Concentrators should begin by the end of February
100th Day Course Enrollment Reports due to ADE from LEA

March

100th Day Course Enrollment **Verification** Reports mailed to LEA

April

100th Day Course Enrollment **Verification** Reports due to ADE from LEA
LEA submit Program Enrollment Report
Program Enrollment Reports due to ADE from LEA

May

Program Enrollment **Verification** Reports mailed to LEA
Program Enrollment **Verification** Reports are due to ADE from LEA

June

Program Enrollment **Final** Reports to be mailed to LEA

July 1

Performance Measures Concentrator and Placement Surveys reports due to ADE.

DEFINITIONS (In alphabetical order)

Articulated Student – A student who attends another school in another district, or a community college or skill center. Monies from the Career and Technical Education State Block Grant Funding for articulated students are generated to the home district.

Career and Technical Education (CTE) — Career and Technical Education provides students with technical skills, knowledge and training necessary to succeed in specific careers and occupations. It also prepares the students for the world of work by introducing them to workplace competencies that are essential no matter what career they choose. Contextual learning makes academic content relevant to the real world.

Career and Technical Education Program — A coherent sequence of instruction designed to deliver all state-designated program competencies for any program on the CTE Program List. A program is directly related to preparing individuals for employment in an occupation. Approved and provisionally approved programs qualify to apply for state and federal funding.

Carnegie Unit — One unit of credit awarded in grades 7-12 for a minimum of 120 clock hours of instruction during the regular school year, or 120 clock hours of instruction during summer school.

CIP — (Classification of Instructional Programs). The U.S. Department of Education's standard educational program classification system. It includes a uniform numbering system and description of educational programs.

Competency — An educational “construct/concept” or abstraction derived from workplace task, knowledge, skill or ability requirements. State-designated Level I, II and III competencies are those published in CTE curriculum frameworks. The occupational Level III program competencies for each CTE program are used to document and calculate student proficiency for Performance Measure 1.3 (Vocational Attainment).

Competency Attainment — Successful, demonstrated and documented achievement of a competency. Acceptable documentation includes the student's name, each state-designated program competency mastered, date of mastery, method of assessment *and written criteria for judging successful mastery*. Acceptable documentation can include multiple information sources or be a single record per student. Documentation is required for Level III competencies until a state-adopted technical proficiency assessment is in place.

Completer — A concentrator who passes the state-adopted proficiency assessment **Or** in the absence of a state proficiency assessment, a concentrator who passes at least 80% of the total program competencies and is documented as attaining at least 80% of the occupational Level III program competencies in an approved CTE program. Such a student may also be referred to as a *Program Completer*.

The percentage of competencies attained is always calculated as:

$$\frac{\text{Student's documented number of occupational Level III program competencies attained}}{\text{Total number of occupational Level III program competencies}}$$

Concentrator — A student who achieves two Carnegie units/credits in a single CTE program. One unit/credit must be in a Level III course. Such a student may also be called a *Program Concentrator*. Examples include earning:

- 1 credit in Level I and 1 credit in Level III; or
- 1 credit in Level II and 1 credit in Level III; or
- 2 credits in Level III

Note: Although a student can achieve concentrator status in any grade 9-12, concentrators are only included on the Concentrator Report when they leave secondary education in the reporting year.

Course Code — The 8 digit CIP number associated with CTE courses. The numbers may be found in the CIP Codes and Titles list. The 8th digit may be used by the district to designate course sequencing, using 0-9 as the 8th digit.

Course Title — The title for courses (8 digit number). The titles may be found in the CIP Codes and Titles list.

County Type District School (CTDS) — County/Type/District/School code. The school number must be accurate to ensure data is correctly credited to your school. Contact the Management Information Services Unit, 602-542-5486 or 602-542-5711, for school CTDS information.

District's Planned Sequence of Courses — The comprehensive coherent sequence of instruction designed to deliver the Levels I, II and III state-designated program competencies for a CTE program. Local sequences are outlined in the district's local application for Carl Perkins Basic Grant funds. The Carnegie units/credits earned in these courses determine the students who achieve concentrator status.

Duplicated Count — One student may be enrolled and counted for data collection purposes in more than one course. Duplicated student count is used when completing Course Enrollment 40th and 100th Day Reports.

Essential Elements — On September 25, 2000 the State Board of Education approved on recommendation from the CTE State Advisory Committee that a CTE Program must be on the current CTE Program List and have all these essential elements:

- Coherent sequence of instruction - Levels I, II and III
- Delivery of all the state-designated competencies
- Taught by an appropriately certified teacher per CTE certification requirements
- Meet or exceed established state performance measures based on an annual evaluation
- Student work-based participation. (Currently on hold; originally to be required in 2003)

Individualized Vocational Education Plan (IVEP) — Required for each vocational student who is a member of a special population category and who is receiving special services in order to succeed in his/her CTE program. An acceptable IVEP is a written plan that specifies all of the following:

- Eligible category in which services are provided to this student
- Student's goals, strengths and weaknesses
- Services required to reach those goals
- Person or agency assigned provide the service
- Student's performance level after receiving the services

Some examples of services, modifications or accommodations include: smaller classes, modification to classroom or equipment, alternative assessment instruments or strategies and/or additional time for completion or tutoring services.

Level III Career and Technical Education Course — A course within a district's planned CTE sequence that delivers occupational Level III program competencies. Course CIP codes 90.0000 and above are not considered Level III.

Minutes Per Week — Funding is based on a minimum of 225 minutes per week per course.

Performance Measures — Set of measures developed and approved by the state Board for Career and Technical Education to measure student outcomes. The process will include a Local Evaluation for the purposes of Program Improvement.

Placement Funding — Funding to districts generated by Career and Technical Education students who have graduated. Their status will be verified by an appropriate survey response to Arizona Department of Education (ADE). Any of following count for placement:

- Employment in a program related position
- Enrollment in post secondary education or advanced training
- Serving in active military duty

Program — Coherent sequence of instruction, which delivers a set of prescribed State competencies attributed to a specified instructional program.

Program CIP Code — Six-digit code, which identifies the CTE program. Program CIP codes are used on the Comprehensive Program Enrollment Reports, Concentrator Reports and Placement Reports.

Program Title — Title of the CTE Program listed as provided in the Handbook.

Racial and Ethnic Codes — Required information that identifies racial or ethnic groups for reporting purposes. Such information is required on Enrollment, Concentrator and Placement reporting. There are five codes.

- White non-Hispanic: A person having origins in any of the original

peoples of Europe, North Africa or the Middle East. Excludes persons of Hispanic origin.

- Black non-Hispanic: A person having origins in any of the black racial groups in Africa. Excludes persons of Hispanic origin.
- Hispanic: A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.
- American Indian or Alaskan Native: A person having origins in any of the original people of North America and maintaining culture identification through tribal affiliation or community recognition.
- Asian or Pacific Islander: A person having origins in any of the original people of the Far East, Southeast Asia, the Indian subcontinent or the Pacific Islands. This area includes, for example, China, India, Japan, Korea, the Philippine Islands and Samoa.

Shared District Instruction (SDI) — Students that articulate from one school to another *in the same district*.

Signature of Superintendent or Authorized Official — All completed enrollment forms submitted to ADE must be signed and dated by the appropriate district superintendent or authorized official whose name is on file at ADE as authorized. An "authorized official" may be the district or school vocational director or another designee of the superintendent.

Special Populations — Eligible categories of students who may receive services in order to succeed in Career and Technical Education courses and programs. Services provided must be documented on the student's IVEP. A student may only be reported in one special population category. Report using the **primary/most significant category applicable** to the student from this list of eligible groups:

Handicap/Disabled — Student with any disability as defined in Section 3 of the Americans with Disabilities Act of 1990 (42 U.S.C. 12102) as follows: a physical or mental impairment that substantially limits one or more of the major life activities of that individual; a record of such an impairment; or being regarded as having such an impairment; and **who requires assistance to succeed in his/her CTE program**. Includes those students evaluated under IDEA and determined to be in need of special education and related services and any individual considered disabled under Section 504 of the Rehabilitation Act of 1973.

LEP — Student with Limited English Proficiency **who requires assistance to succeed** in his/her CTE program: a secondary school student, an adult, or an out-of-school youth, who has limited ability in speaking, writing, or understanding the English language and-

- Whose native language is not English; or-
- Who lives in a family or community environment in which a language other than English is the dominant language

Economically Disadvantaged — Family or individual including foster children, which the Local Educational Agency identifies as low income (on the basis

of uniform methods described in the State plan) **and who requires financial assistance to succeed in Career and Technical Education.** Examples of eligibility definitions include:

- Annual income at or below the official poverty line
- Eligibility for free school lunch
- Eligibility for Aid to Families with Dependent Children or other public assistance programs;
- Eligibility for participation in programs assisted under Title I of the WIA

Academically Disadvantaged — Student at or below the 25th percentile on a standardized achievement or aptitude test, whose secondary school grades are below 2.0 on a 4.0 scale, or who fails to attain minimum academic competencies and **who requires assistance to succeed in his/her CTE program.**

Single Parent — Any individual who requires assistance to succeed in his/her CTE program and who:

- Has custody and-
- Responsibility for the support and care of one or more dependent children under the age of eighteen in the same residence

(Note: For eligibility purposes, a person who provides child support but no custodial care is not considered a single parent. Single pregnant women are eligible for services.)

State-Designated Program Competencies —The Level I, II and III competencies published in CTE curriculum frameworks available from the Career and Technical Education Division of the Arizona Department of Education. The occupational Level III program competencies for each CTE program are used to document and calculate student vocational proficiency for Performance Measure 1.3 (Vocational Attainment).

Tech Prep —An education program of study that combines at least two (2) years of a secondary Approved Career Technical Education Program, two years of post secondary career education and contextual academic education at each level in a non-duplicative sequential course of study. An approved Tech Prep program of study will include documentation of articulation between secondary and post secondary education agencies supervised by the Director of the approved local Consortium.

Total Grade Enrollment — The total number of students enrolled for the Course Code listed.

Unduplicated Count/Enrollment —A student is counted only once, even if that student is enrolled in more than one program. Unduplicated student count is used on the Program Enrollment and Concentrator Reports.

Unduplicated Program Reporting —Reporting is required on the Year End Program

Enrollment Report, the Concentrator Report and the Placement Report. Suggested guidelines for determining where to report a student who is enrolled in more than one program include any of the following:

- Reporting the student based on a declared career goal
- Reporting a student based upon the highest number of credits achieved in a CTE program
- Reporting a student based upon their latest CTE program credits achieved

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County Type District School (CTDS) 2004

District	School Name	CTDS Number
Agua Fria Union High School District	Agua Fria Union High School	070516201
	Millennium High School	070516202
	Desert Edge High School	070516203
Ajo Unified District	Ajo School	100215001
Amphitheater Unified District	Amphitheater High School	100210281
	Canyon Del Oro High School	100210282
	Ironwood Ridge High School	100210280
Antelope Union High School District	Antelope Union High School	140550201
Apache Junction Unified District	Apache Junction High School	110243201
Arizona Agribusiness & Equine	Arizona Agribusiness & Equine	078707201
Arizona Career Academy	Pinnacle High School - Mesa	078932002
	Pinnacle High School - Tempe	078932001
Ash Fork Unified District	Ash Fork High School	130231202
Bagdad Unified District	Bagdad High School	130220202
Benson Unified District	Benson Unified High School	020209201
Bicentennial Union High District	Salome High School	150576201
Bisbee Unified District	Bisbee High School	020202201
Blue Ridge Unified District	Blue Ridge High School	090232204
Bowie Unified District	Bowie High School	020214200
Buckeye Union High School Dist	Buckeye Union High School	070501201
	Estrella Foothills High School	070501202
Camp Verde Unified District	Camp Verde High School	130228203
Casa Grande Union High District	Casa Grande Alternative School	110502003
	Casa Grande Union High School	110502001
	Casa Verde High School	110502701
Catalina Foothills Unified District	Catalina Foothills High School	100216206
Cave Creek Unified District	Cactus Shadows High School	070293204
Chandler Unified District	Chandler High School	070280202
	Hamilton High School	070280223
Chinle Unified District	Chinle High School	010224240
Chino Valley Unified District	Chino Valley High School	130251203
Colorado City Unified District	Colorado City High School	080214202

District	School Name	CTDS Number
Colorado River Union High District		
	Mohave High School	080502001
	River Valley High School	080502002
Coolidge Unified District		
	Coolidge High School	110221007
Deer Valley Unified District		
	Barry Goldwater High School	070297224
	Deer Valley High School	070297219
	Mountain Ridge High School	070297233
	Northwest Education Center	070297026
	Sandra Day O'Connor HS	070297241
Desert Hills Charter High		
	Desert Hills High School	078947001
Desert Technology Schools		
	Desert Technology High School	088757201
Douglas Unified District		
	Douglas High School	020227210
Duncan Unified District		
	Duncan High School	060202203
Dysart Unified District		
	Dysart High School	070289205
	Willow Canyon High School	070289210
Eagle's Aerie Schools		
	Eagle's Aerie School	078725001
East Valley Institute of Technology		
	EVIT - Apache Junction	070801005
	EVIT - Chandler Air	070801003
	EVIT - Fountain Hills Voc CTR	070801007
	EVIT - Gilbert	070801006
	EVIT - Main	070801001
	EVIT - Scottsdale	070801004
	EVIT - Tempe Auto	070801002
Excel Education Center		
	Excel Education Ctr - Prescott	138737001
Flagstaff Unified District		
	Coconino High School	030201282
	Flagstaff High School	030201281
	Sinagua High School	030201283
Florence Unified School District		
	Florence High School	110201201
Flowing Wells Unified District		
	Flowing Wells High School	100208210
Foothills Academy		
	Foothills Academy	078628000
Fountain Hills Unified District		
	Fountain Hills Sr High School	070298205
Fredonia Moccasin Unified District		
	Fredonia High School	030206203
Ft. Thomas Unified District		
	Ft. Thomas High School	050207202
Ganado Unified District		
	Ganado High School	010220204
Gila Bend Unified District		
	Gila Bend High School	070224002
Gilbert Unified District		
	Alternative Center for Ed	070241230
	Gilbert High School	070241210
	Highland High School	070241211

District	School Name	CTDS Number
	Mesquite High School	070241212
	Desert Ridge High School	070241213
Glendale Union High School District		
	Apollo High School	070505206
	Christown Academy	070505210
	Cortez High School	070505204
	Gilbert Night School	070241232
	Glendale High School	070505201
	Greenway High School	070505208
	Independence High School	070505209
	Moon Valley High School	070505205
	Sunnyslope High School	070505202
	Thunderbird High School	070505207
	Washington High School	070505203
Globe Unified School District		
	Globe High School	040201004
Grand Canyon Unified District		
	Grand Canyon High School	030204002
Greyhills Academy		
	Greyhills Academy High School	033903001
Hayden-Winkleman Unified District		
	Hayden High School	040241004
Heber-Overgaard Unified District		
	Mogollon High School	090206201
Higley Unified District		
	Higley High School	070260201
Holbrook Unified District		
	Holbrook High School	090203207
Hopi Jr-Sr High		
	Hopi Jr-Sr High	098650001
Humboldt Unified District		
	Bradshaw Mountain High School	130222230
Indian Oasis-Babo Unified District		
	Baboquivari Alternative High School	100240206
	Baboquivari High School	100240204
Ira H. Hayes Memorial Learning Center		
	Ira Hayes Memorial Learning Center	118702201
Joseph City Unified District		
	Joseph City High School	090202002
Kayenta Unified District		
	Monument Valley High School	090227201
Kingman Unified High School District		
	Kingman High School - North	080220202
Lake Havasu Unified District		
	Lake Havasu High School	080201207
Mammoth-San Manuel Unified District		
	San Manuel High School	110208281
Many Farms District		
	Many Farms High School	014002201
Marana Unified District		
	Marana High School	100206240
	Mountain View High School	100206241
Maricopa Unified School District		
	Maricopa High School	110220202
Mary C. O'Brien Accommodation District		
	Villa Oasis Interscholastic Center	110100003
Mayer Unified District		
	Mayer Jr / Sr High School	130243002

District	School Name	CTDS Number
Mesa Unified School District		
	Boulder Canyon Learning Center	070204280
	Brimhall Jr High School	070204261
	Carson Jr High School	070204252
	Dobson High School	070204274
	East Valley Academy	070204278
	Fremont Jr High School	070204254
	George Smith Jr. High School	070204263
	Hendrix Jr High School	070204259
	Kino Jr High School	070204253
	Mesa High School	070204271
	Mesa Jr High School	070204251
	Mesa Vista High School	070204184
	Mountain View High School	070204273
	Poston Jr High School	070204256
	Powell Jr High School	070204255
	Power Learning Center	070204181
	Red Mountain High School	070204275
	Rhodes Jr High School	070204257
	Shepherd Jr High School	070204260
	Skyline High School	070204276
	Stapley Jr High School	070204262
	Sundown High School	070204277
	Taylor Jr High School	070204258
	Westwood High School	070204272
Miami Unified District	Miami High School	040240206
Mingus Union High School District		
	Mingus union High School	130504201
Nogales Unified District	Nogales High School	120201210
Page Unified District	Page High School	030208209
Paradise Valley Unified District		
	Horizon High School	070269293
	North Canyon High School	070269294
	Paradise Valley High School	070269290
	Pinnacle High School	070269292
	Polaris High School	070269296
	Shadow Mountain High School	070269295
	Star Tec Professional Center	070269067
Parker Unified School District	Parker High School	150227204
Patagonia Union High District		
	Patagonia Union High School	120520201
Payson Unified District	Payson High School	040210201
Peach Springs Unified District		
	Peach Springs School	080208001
	Sunrise Mountain High School	070211264
Peoria Unified District		
	Cactus High School	070211261
	Centennial High School	070211263
	Ironwood High School	070211262
	Peoria High School	070211260
	Sunrise Mountain High School	070211264

District	School Name	CTDS Number
Phoenix Union High School District		
	Alhambra High School	070510210
	Bostrom Alternative Center	070510214
	Camelback High School	070510225
	Carl Hayden High School	070510245
	Central High School	070510230
	Cesar Chavez High School	070510270
	Desiderata School	070510238
	Homebound	070510206
	Maryvale High School	070510250
	Metro Tech Voc Inst of Phx	070510212
	North High School	070510255
	South Mountain High School	070510260
	Trevor Browne High School	070510220
Pima Unified School District		
	Pima High School	050206202
Pimeria Alta High School		
	Pimeria Alta High School - Green Valley	128724202
Pinon Unified District		
	Pinon High School	090204203
Prescott Unified District		
	Prescott High School	130201070
	Tri-City Prep	138757201
Queen Creek Unified District		
	Queen Creek High School	070295201
Ray Unified District		
	Ray High School	110203202
Red Mesa Unified District		
	Red Mesa High School	010227204
Rough Rock District		
	Rough Rock Community School	014001201
Round Valley Unified District		
	Round Valley HS	010210210
Safford Unified District		
	Mt. Graham High School	050201201
	Safford High School	050201200
Sahuarita Unified District		
	Sahuarita High School	100230204
San Carlos Unified District		
	San Carlos High School	040220202
San Simon Unified District		
	San Simon School	020218001
Sanders Unified District		
	Valley High School	010218003
Santa Cruz Valley Unified District		
	Rio Rico High School	120235200
Santa Cruz Valley Union High District		
	Santa Cruz Valley Union High School	110540001
Santa Cruz Valley Unified District		
	Calabasas School	120235130
	Rio Rico High School	120235200
Scottsdale Unified District		
	Arcadia High School	070248292
	Chaparral High School	070248295
	Coronado High School	070248293
	Desert Mountain High School	070248296
	Saguaro High School	070248294

District	School Name	CTDS Number
Sedona Oak Creek Unified District		
	Sedona Red Rock High School	130209210
Shonto Governing Board		
	Shonto Preparatory Tech High School	098746001
Seligman Unified District		
	Seligman High School	130240202
Show Low Unified District		
	Show Low High School	090210225
Sierra Vista Unified District		
	Buena High School	020268260
Snowflake Unified District		
	Snowflake High School	090205005
St David Unified District		
	St David High School	020221202
St Johns Unified District		
	St Johns High School	010201205
Sunnyside Unified District		
	Desert View High School	100212211
	Sunnyside High School	100212230
Superior Unified District		
	Superior High School	110215205
Tempe Accelerated Charter		
	Tempe Accelerated High School	078954001
Tempe Union High School Dist		
	Compadre High School	070513097
	Corona Del Sol High School	070513094
	Desert Vista High School	070513096
	Marcos De Niza High School	070513093
	McClintock High School	070513092
	Mountain Pointe High School	070513095
	Tempe High School	070513091
Thatcher Unified School District		
	Thatcher High School	050204200
The Leona Group		
	Desert Hills High School	078718214
	Estrella High School	078948001
	Summit High School	078718208
	Sun Valley High School	078718203
	Tempe Accelerated High School	078718205
Tolleson Union High School		
	La Joya Community High School	070514203
	Tolleson Union High School	070514201
	Westview High School	070514202
Tombstone Unified District		
	Tombstone High School	020201207
Tuba City Unified District		
	Tuba City High School	030215240
Tucson Unified District		
	Catalina Magnet High School	100201610
	Cholla Magnet High School	100201615
	Howenstine High School	100201680
	PACE Alternative	100201672
	Palo Verde Magnet High School	100201620
	Project M.O.R.E.	100201674
	Project PASS	100201671
	Pueblo Magnet High School	100201630
	Rincon High School	100201640

District	School Name	CTDS Number
	Sabino High School	100201645
	Sahuaro High School	100201650
	Santa Rita High School	100201655
	Tucson Magnet High School	100201660
	University High School	100201675
Vail Unified District		
	Cienega High School	100220201
Valley Academy for Career and Tech Ed		
	Valley Academy - Camp Verde USD	130801002
	Valley Academy - Clarkdale Jerome	130801005
	Valley Academy - Cottonwood Oakcreek	130801004
	Valley Academy - Mingus USH	130801001
	Valley Academy - Sedona	130801003
Valley Union High School District		
	Valley Union High School	020522201
Westwind Academy		
	Westwind Academy	078773000
Whiteriver Unified District		
	Alchesay High School	090220204
Wickenburg Unified District		
	Vulture Peak School	070209103
	Wickenburg High School	070209201
Willcox Unified District		
	Willcox High School	020213201
Williams Unified District		
	Williams High School	030202201
Window Rock Unified District		
	Window Rock High School	010208201
Winslow Unified District		
	Winslow High School	090201206
Young Elementary District		
	Young Teaching High School	040305002
Yuma Union High School District		
	Cibola High School	140570203
	Kofa High School	140570202
	San Luis High School	140570205
	Vista Alternative School	140570204
	Yuma High School	140570201